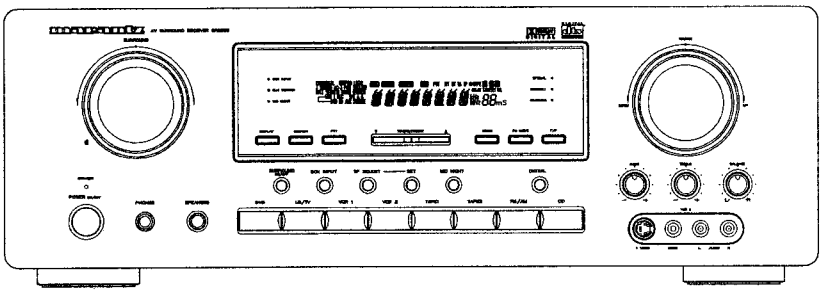
Service Manual

SR5000/N1B, /K1B, /K1G, /U1B, /U1G

AV Surround receiver



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Please use this service manual with referring to the user guide (D.F.U) without fail.

marantz®

SR5000

285V855010 AO
3120 785 22170
First Issue:1999.10

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA
MARANTZ AMERICA, INC.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172
USA
PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

EUROPE / TRADING
MARANTZ EUROPE B.V.
P.O.BOX 80002, BUILDING SFF2
5600 JB EINDHOVEN
THE NETHERLANDS
PHONE : +31 - 40 - 2732241
FAX : +31 - 40 - 2735578

BRAZIL
MARANTZ BRAZIL
CAIXA POSTAL 21462
CEP 04698-970
SAO PAULO, SP, BRAZIL
PHONE : 0800 - 123123(Discagem Direta Gratuita)
FAX : +55 11 534. 8988

PROFESSIONAL **AMERICAS**
SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

CANADA
LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

AUSTRALIA
JAMO AUSTRALIA PTY LTD
1 EXPO COURT, P.O. BOX 350
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - 3 - 9543 - 1522
FAX : +61 - 3 - 9543 - 3677

THAILAND
MRZ STANDARD CO.,LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE
WO KEE HONG (S) PTE LTD
WO KEE HONG CENTRE
NO.23, LORONG 8, TOA PAYOH
SINGAPORE 319257
PHONE : +65 2544555
FAX : +65 2502213

TAIWAN
PAI- YUING CO., LTD.
6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA
WO KEE HONG ELECTRONICS SDN. BHD.
NO. 102 JALAN SS 21/35, DAMANSARA
UTAMA, 47400 PETALING JAYA
SELANGOR DARUL EHSAN, MALAYSIA
PHONE : +60 3 - 7184666
FAX : +60 3 - 7173828

JAPAN *Technical*
MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 748 9190

日本マランツ株式会社
本 社 〒228-8505
神奈川県相模原市相模大野7-35-1
営業本部 〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA
MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

FM TUNER SECTION

FREQUENCY RANGE ..... 87.5 - 108.0 MHz
USABLE SENSITIVITY ..... IHF 0.9μV/10.8 dBf

SIGNAL TO NOISE RATIO ..... MONO/STEREO 70/65 dB
DISTORTION ..... MONO/STEREO 0.2/0.5 %
STEREO SEPARATION ..... 1 kHz 45 dB
A.C.S ..... ±400 kHz 55 dB
IMAGE REJECTION ..... 98 MHz 50 dB
TUNER OUTPUT LEVEL ..... 1 kHz, ±40kHz Dev 600 mV (/N1B, /K1B)
..... ±75 kHz (/U1B,/U1G)

AM TUNER SECTION

FREQUENCY RANGE ..... 522 - 1620 kHz (/N1B, /K1B,/K1G)
..... 520 - 1710 kHz (/U1B,/U1G)
USABLE SENSITIVITY ..... LOOP 500μV/m
SIGNAL TO NOISE RATIO ..... 50 dB (at 94 dB/m)
DISTORTION ..... 1 kHz, 30 % Mod.0.5 %
SELECTIVITY ..... ±10 kHz 25 dB (at 85 dB)

AUDIO SECTION

RATED POWER (5ch drive)
Front ..... 20 Hz - 20 kHz 8 ohms 70 W/ch
Center ..... 1 kHz 8 ohms 70 W
Surround ..... 1 kHz 8 ohms 70 W/ch
THD Front ..... 20 Hz - 20 kHz 8 ohms 0.09 %
INPUT SENSITIVITY/IMPEDANCE
LINEAR ..... 200 mV/47k ohms
SIGNAL TO NOISE RATIO (IHF-A)
LINEAR ..... 92 dB

VIDEO SECTION

Input/Output Level/Impedance ..... 1.0 Vp-p/75 ohms

OTHERS

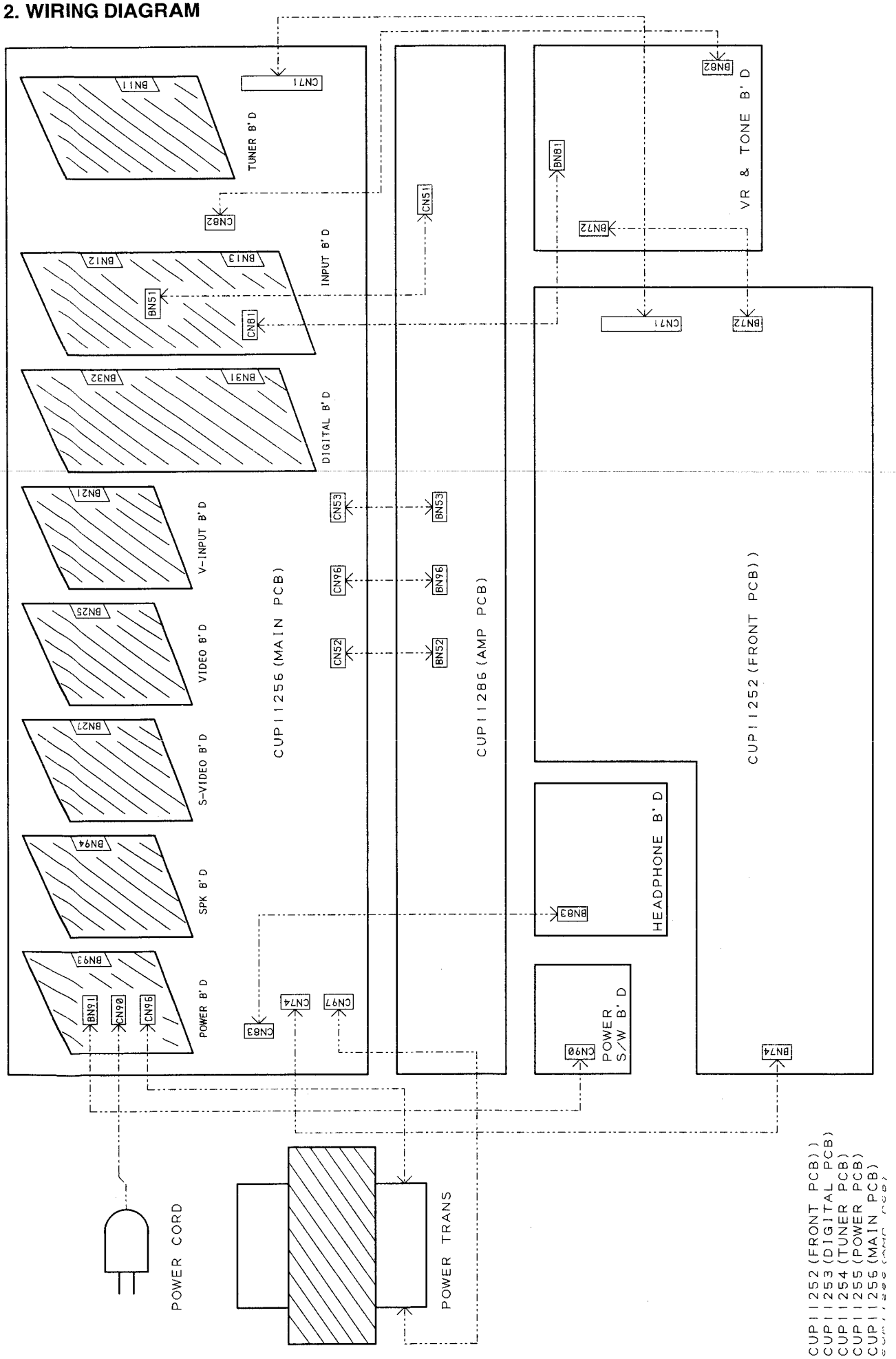
POWER SUPPLY ..... AC 230V 50 Hz (/N1B)
AC 220V 50 Hz (/K1B,K1G)
AC 120V 60 Hz (/U1B,/U1G)
POWER CONSUMPTION ..... 380 W (/N1B)
380 W (/K1B,/K1G)
3.8 A (/U1B,/U1G)

DIMENSIONS (MAX)

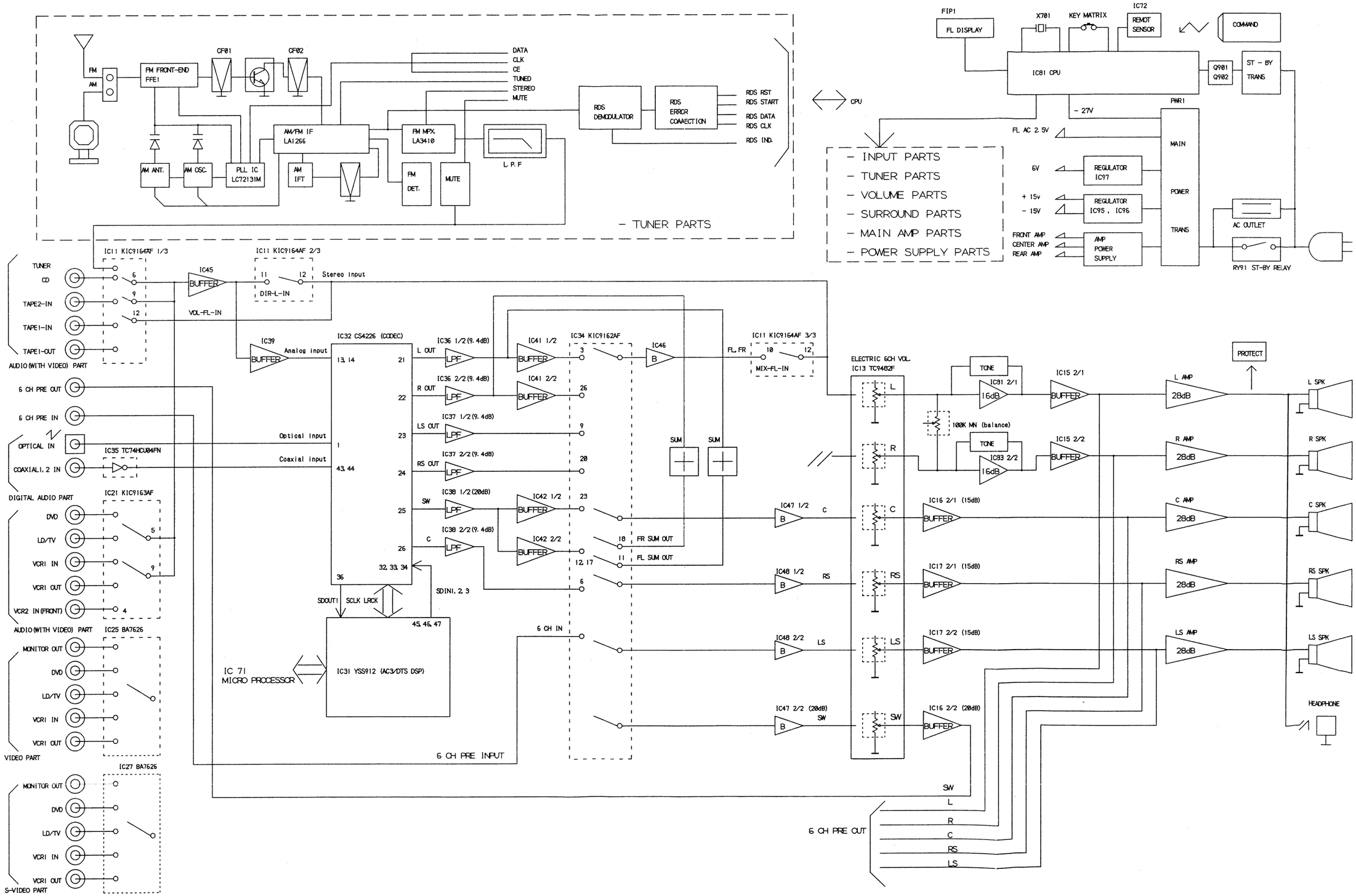
WIDTH ..... 440 mm
HEIGHT ..... 153 mm
DEPTH ..... 425 mm
WEIGHT ..... 13.5 kg

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

2. WIRING DIAGRAM

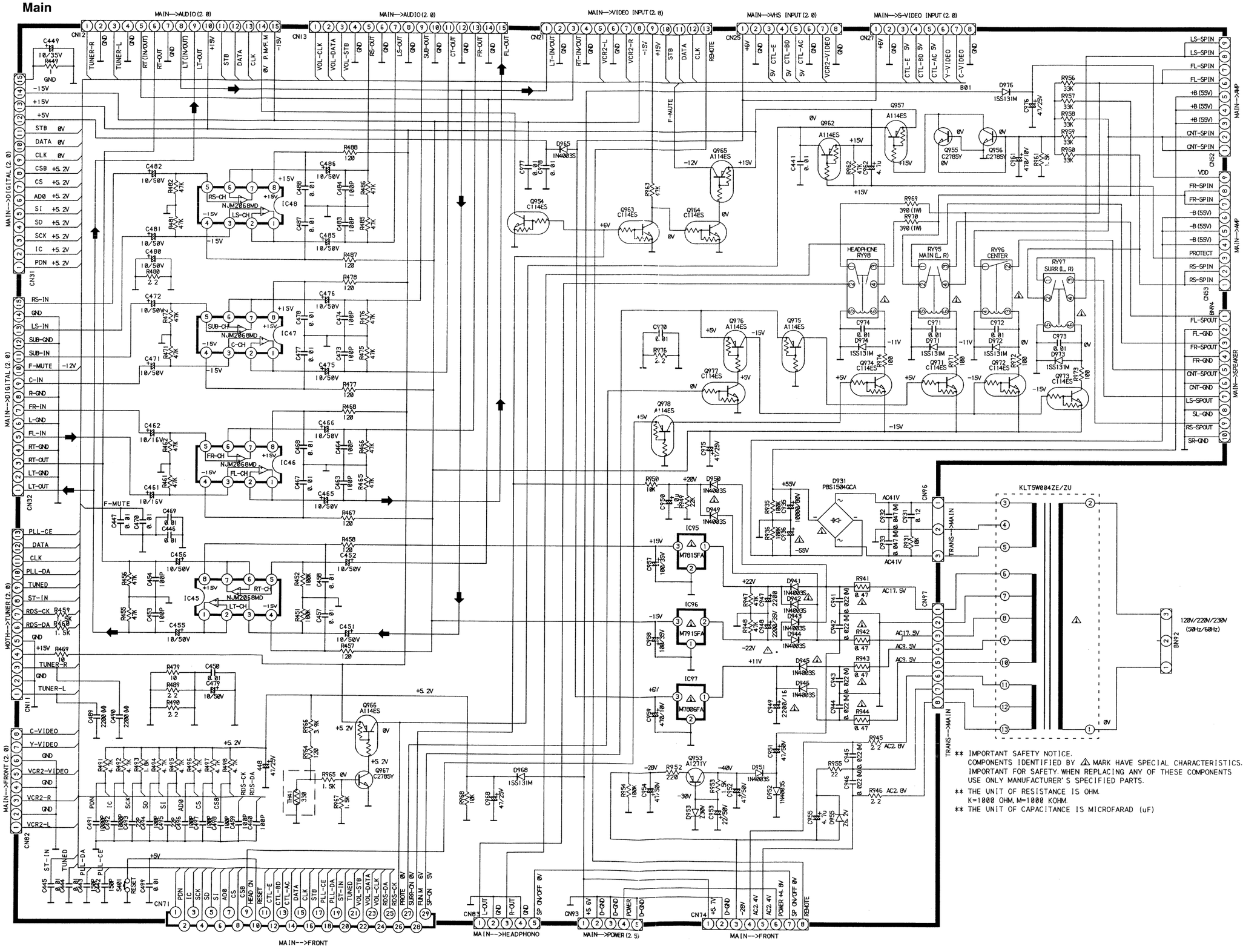


3. BLOCK DIAGRAM



4. SCHEMATIC DIAGRAM AND PARTS LOCATION

Main



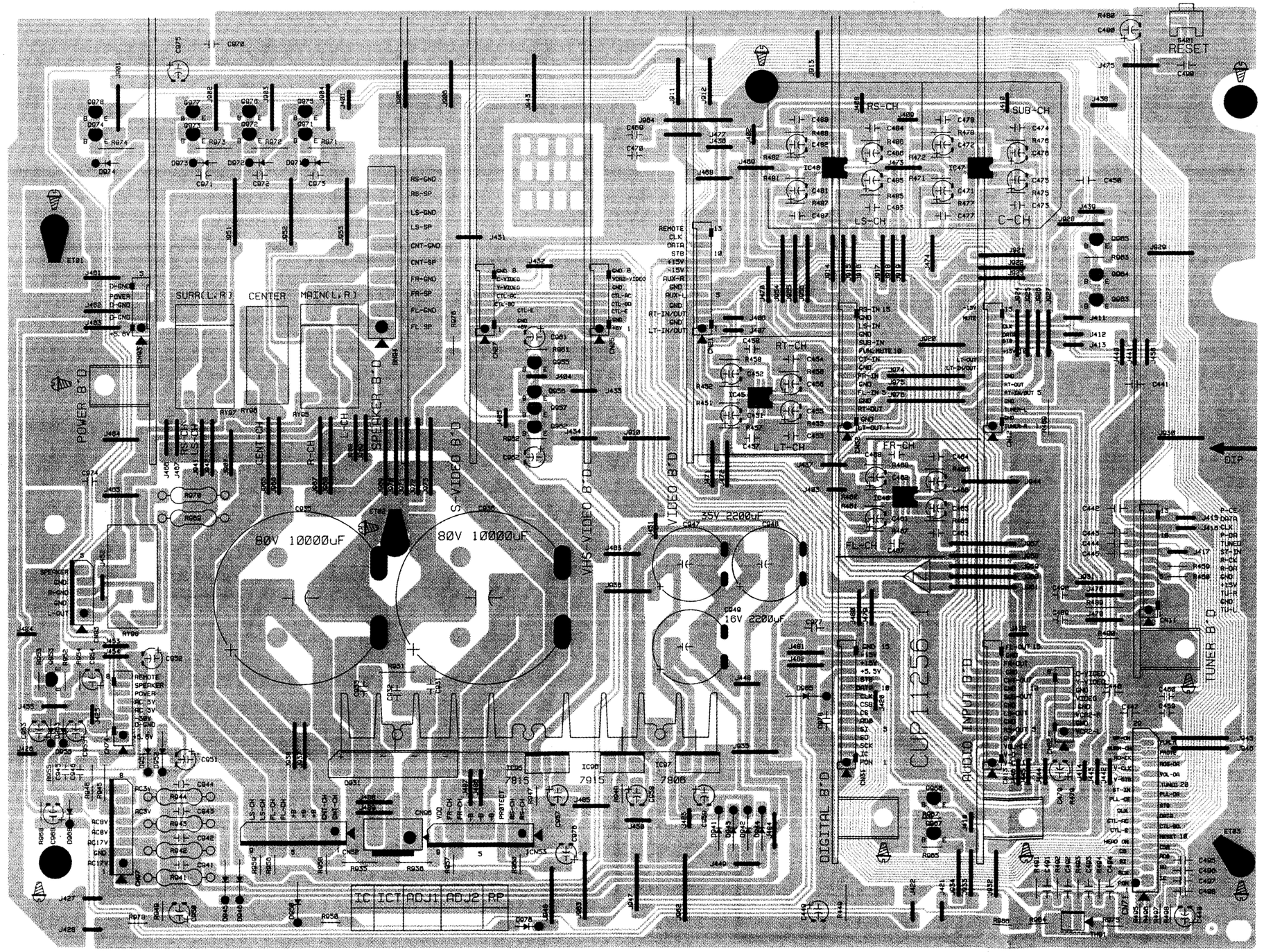
** IMPORTANT SAFETY NOTICE.
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS.
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.

** THE UNIT OF RESISTANCE IS OHM.
K=1000 OHM, M=1000 KOHM.

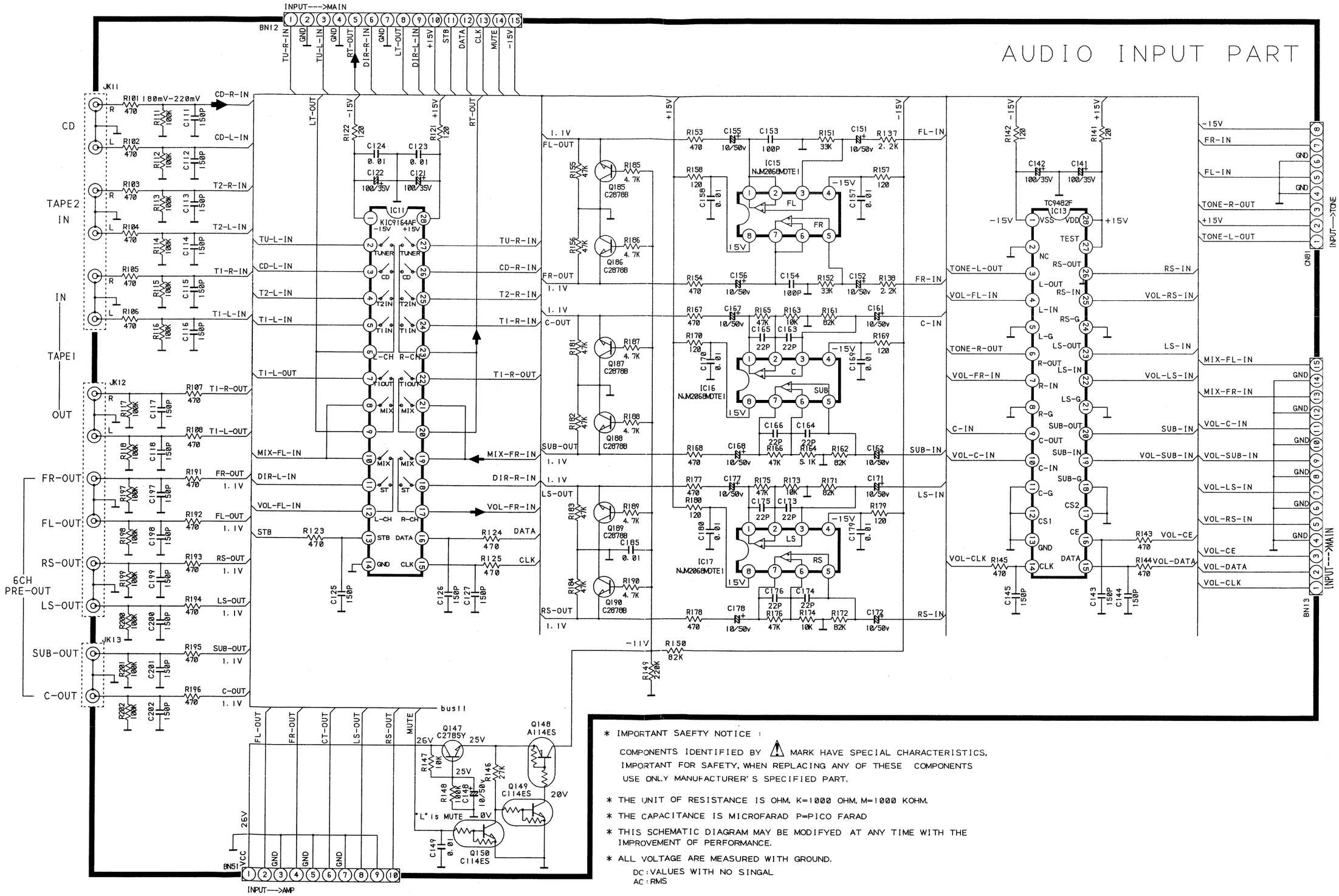
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF)

Main Board

Q953 Q978 Q974 Q977 Q973 Q976 Q972 Q975 Q971 Q955 Q956 Q957 Q962 IC95 IC96 IC97 IC45 IC48 IC46 Q966 Q967 IC47 Q965 Q964 Q963



Audio Input / Volume



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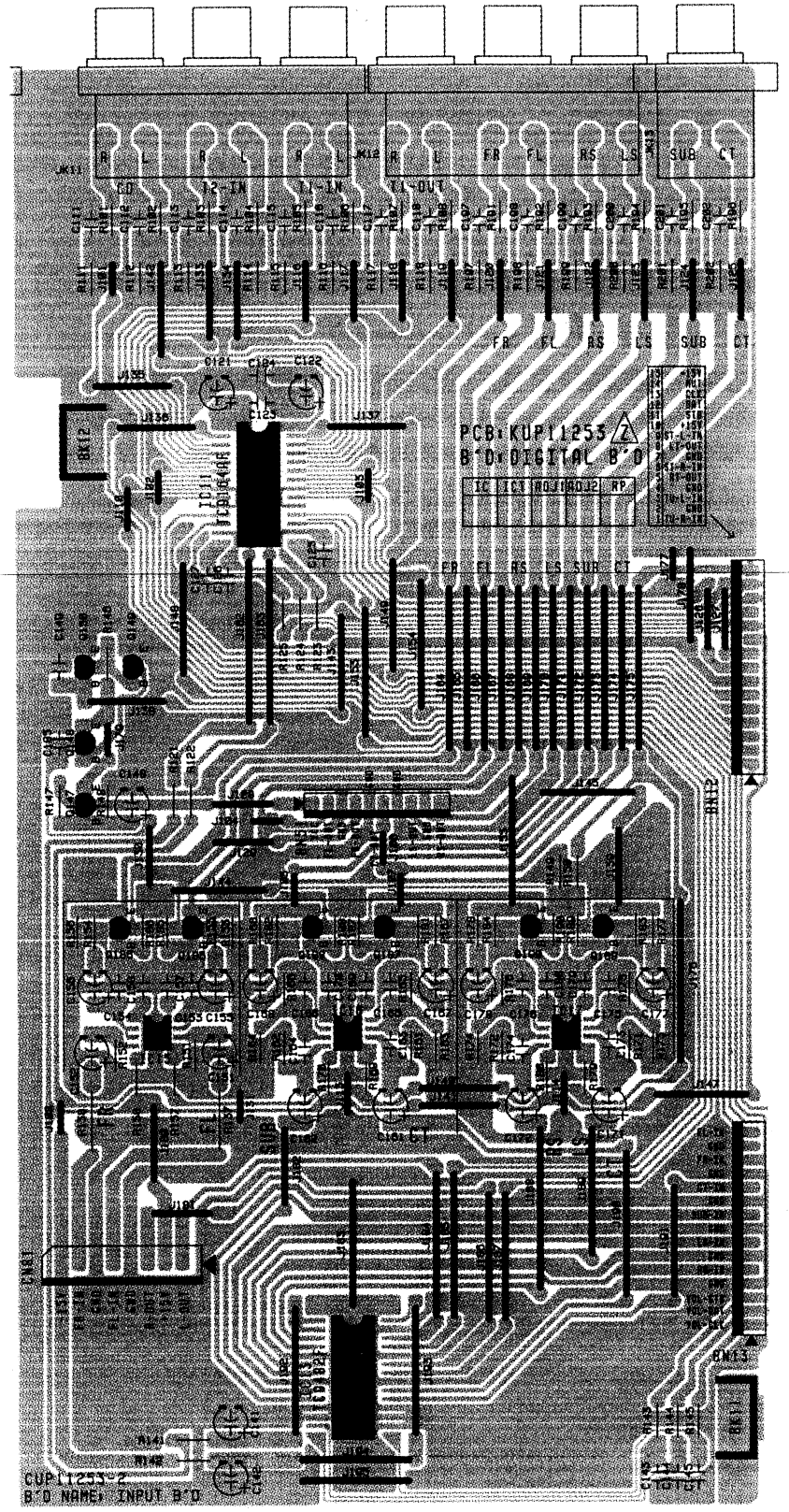
* THE CAPACITANCE IS MICROFARAD P=PICO FARAD

* THIS SCHEMATIC DIAGRAM MAY BE MODIFYED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

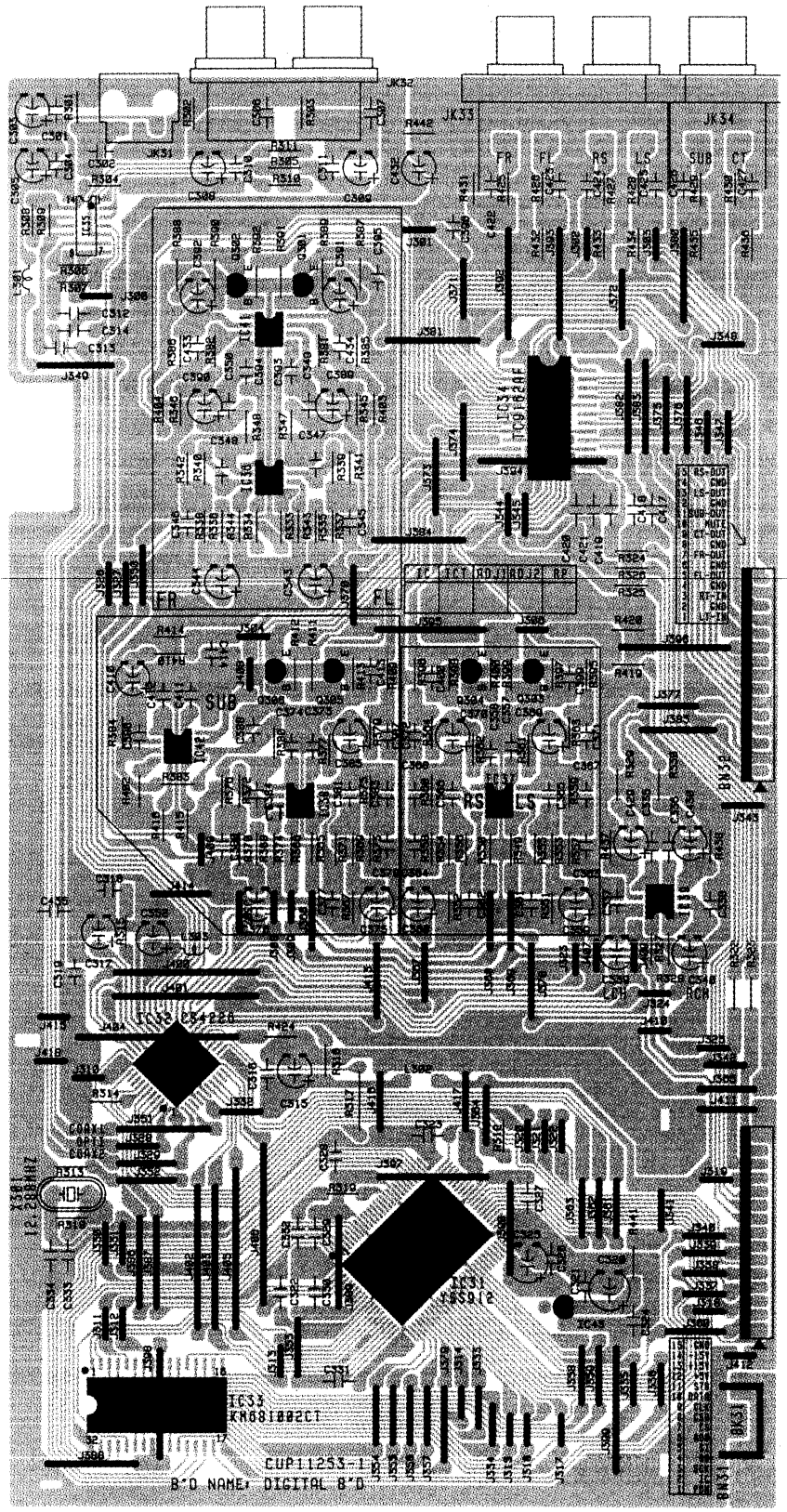
* ALL VOLTAGE ARE MEASURED WITH GROUND.

DC : VALUES WITH NO SINGAL
AC : RMS

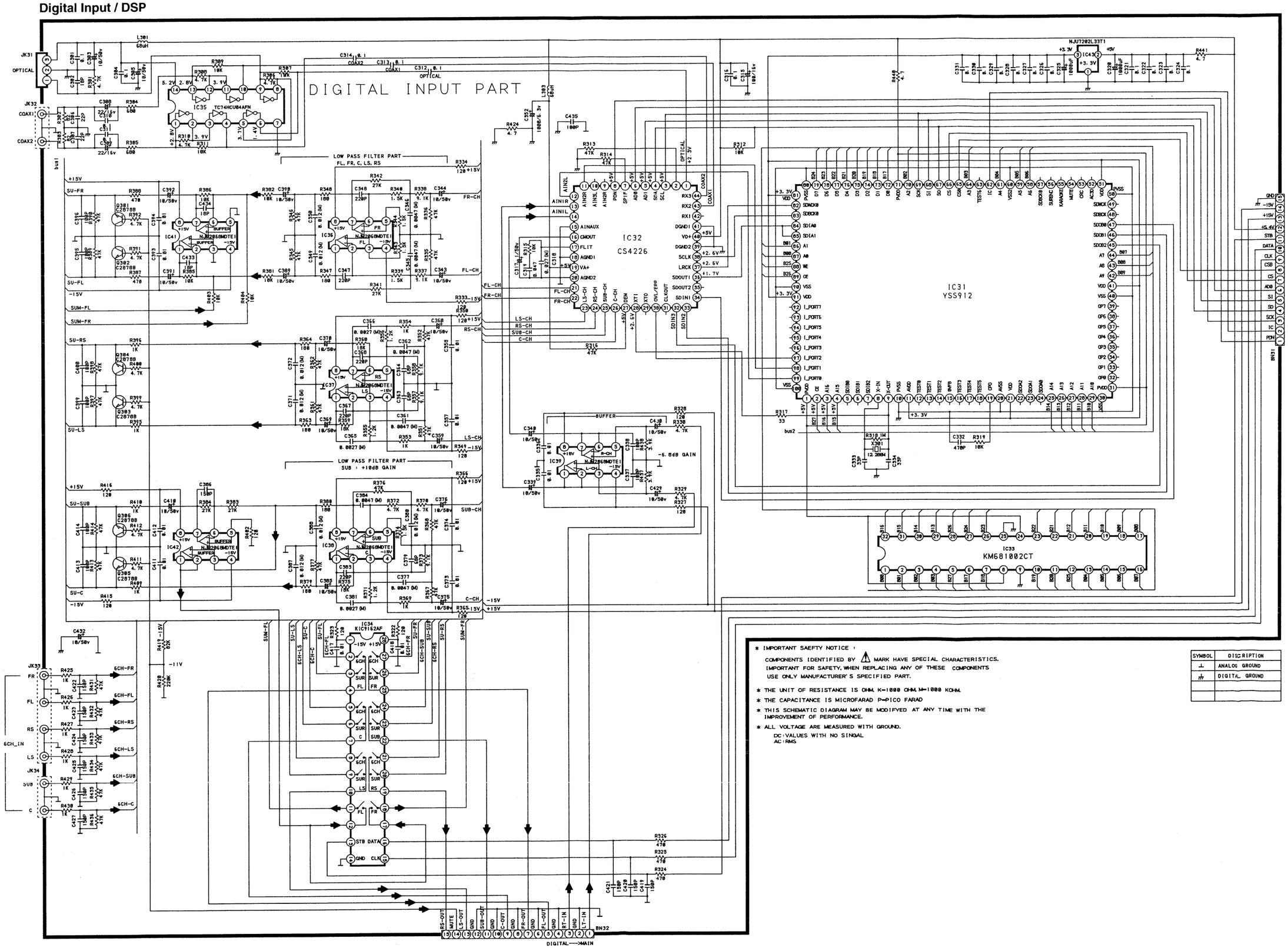
Audio In / Volume Board



Digital In / DSP Board



Digital Input / DSP



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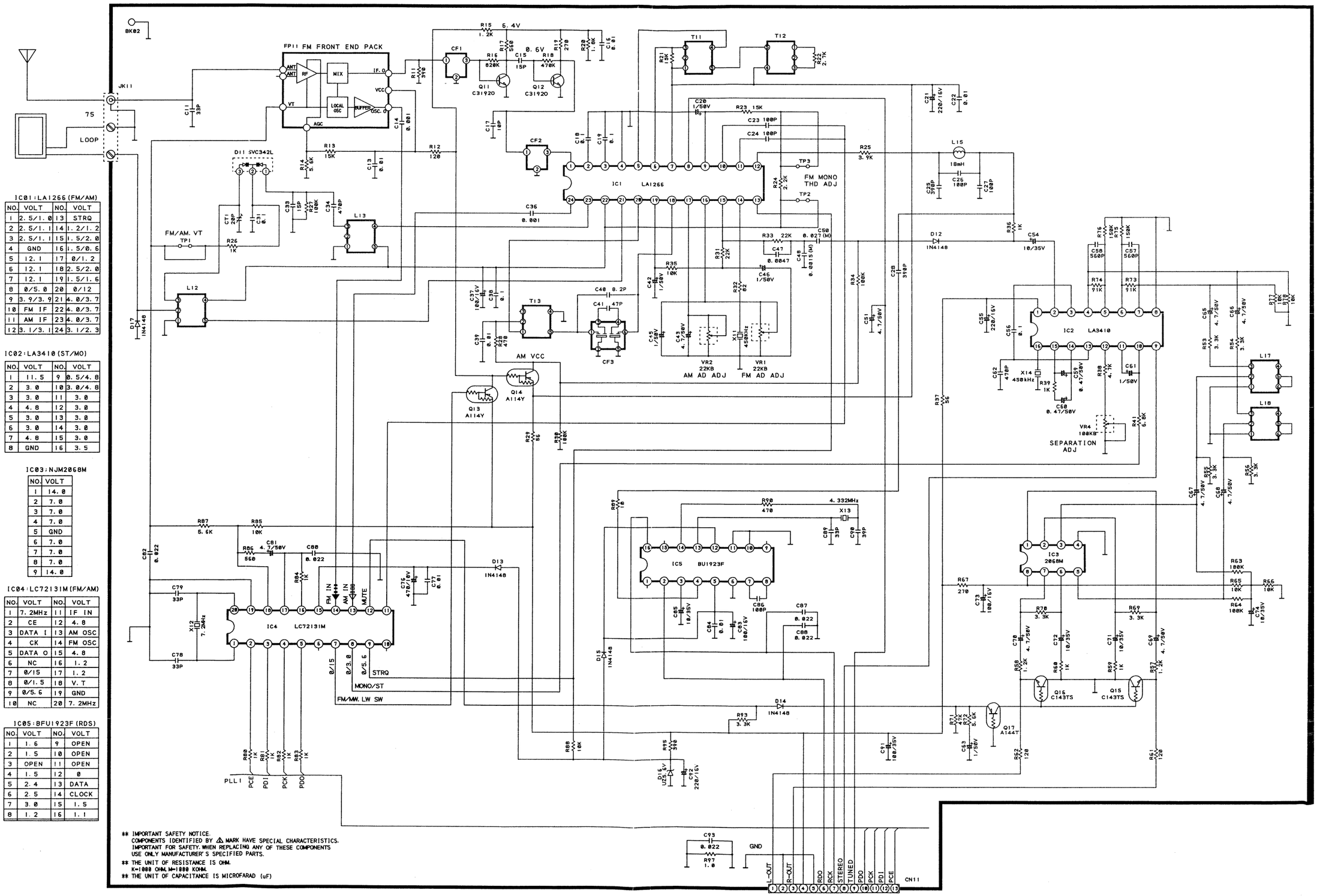
* ALL VOLTAGE ARE MEASURED WITH GROUND.
  DC : VALUES WITH NO SINGAL
  AC : RMS

SYMBOL	DISCRIPTION
⊥	ANALOG GROUND
⏚	DIGITAL GROUND

Tuner (/N1)



IC01:LA1266(FM/AM)

NO.	VOLT	NO.	VOLT
1	2.5/1.0	13	STRQ
2	2.5/1.1	14	1.2/1.2
3	2.5/1.1	15	1.5/2.0
4	GND	16	1.5/0.6
5	12.1	17	0/1.2
6	12.1	18	2.5/2.0
7	12.1	19	1.5/1.6
8	0/5.0	20	0/12
9	3.9/3.9	21	4.0/3.7
10	FM IF	22	4.0/3.7
11	AM IF	23	4.0/3.7
12	3.1/3.1	24	3.1/2.3

IC02:LA3410(ST/MO)

NO.	VOLT	NO.	VOLT
1	11.5	9	0.5/4.8
2	3.0	10	3.0/4.8
3	3.0	11	3.0
4	4.8	12	3.0
5	3.0	13	3.0
6	3.0	14	3.0
7	4.8	15	3.0
8	GND	16	3.5

IC03:NJM2068M

NO.	VOLT
1	14.0
2	7.0
3	7.0
4	7.0
5	GND
6	7.0
7	7.0
8	7.0
9	14.0

IC04:LC72131M(FM/AM)

NO.	VOLT	NO.	VOLT
1	7.2MHz	11	IF IN
2	CE	12	4.8
3	DATA I	13	AM OSC
4	CK	14	FM OSC
5	DATA O	15	4.8
6	NC	16	1.2
7	0/15	17	1.2
8	0/1.5	18	V.T
9	0/5.6	19	GND
10	NC	20	7.2MHz

IC05:BFU1923F(RDS)

NO.	VOLT	NO.	VOLT
1	1.6	9	OPEN
2	1.5	10	OPEN
3	OPEN	11	OPEN
4	1.5	12	0
5	2.4	13	DATA
6	2.5	14	CLOCK
7	3.0	15	1.5
8	1.2	16	1.1

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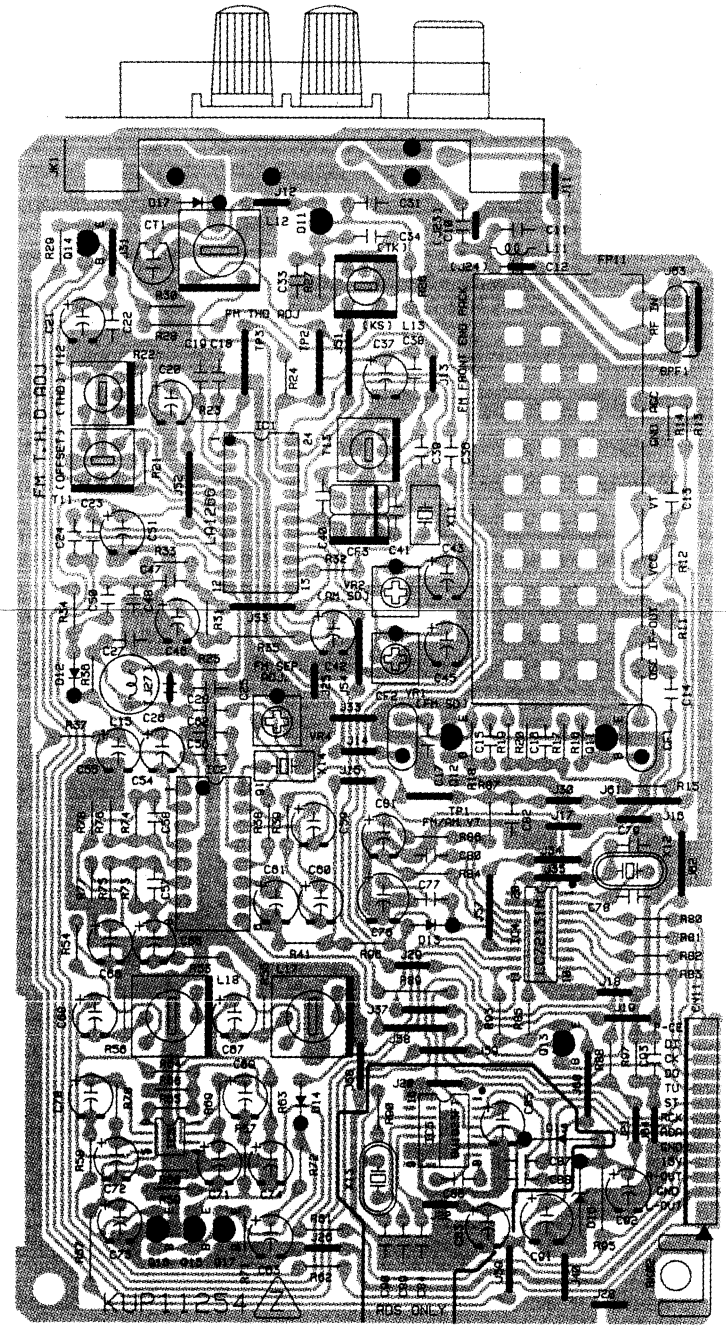
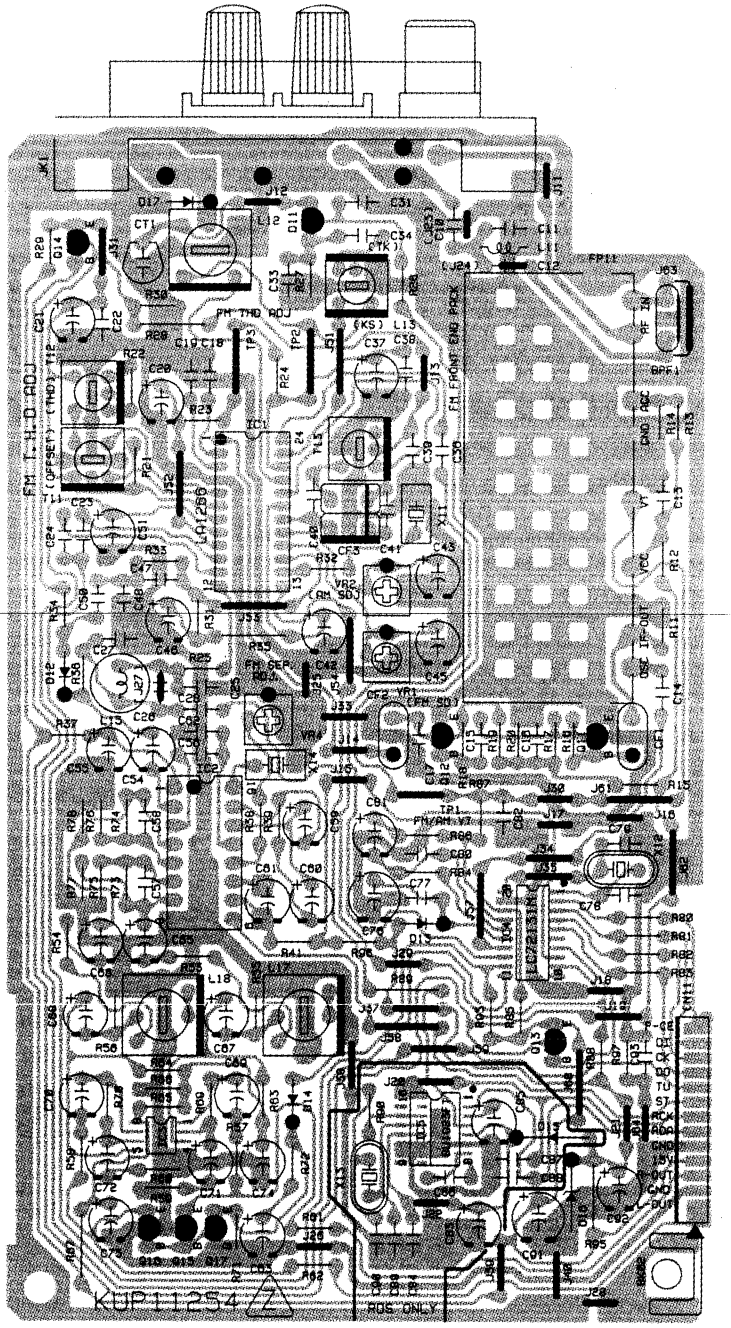
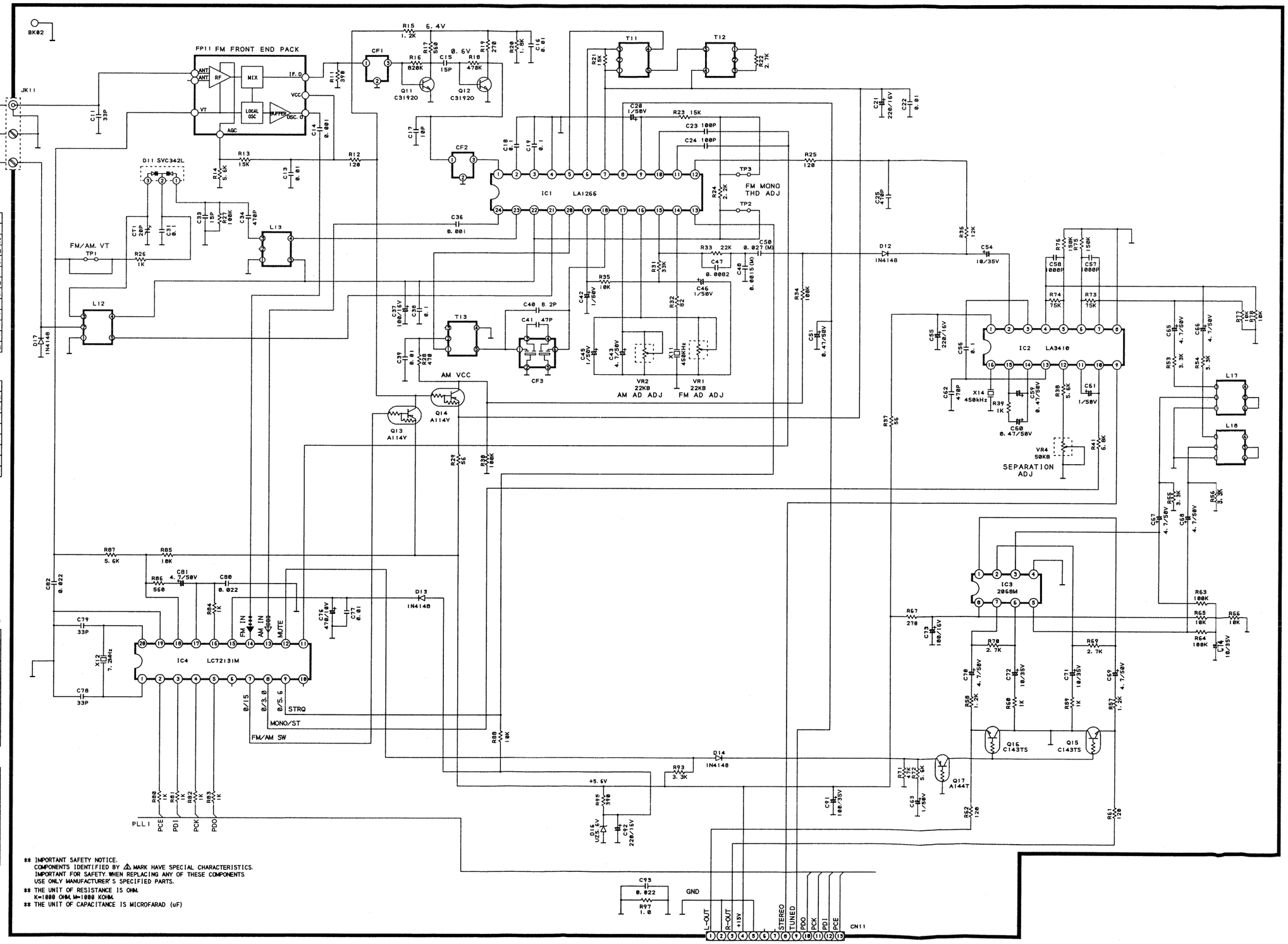
Tuner Board


Q14
IC1
Q12, Q11
IC2
IC4
Q13
IC3, IC5
Q16, Q15, Q17
KUP1125A
RDS ONLY

Tuner Board


Q14
IC1
Q12, Q11
IC2
IC4
Q13
IC3, IC5
Q16, Q15, Q17
KUP1125A-Z
ROS ONLY

Tuner (/K1, /U1)



IC01:LA1266 (FM/AM)

NO.	VOLT	NO.	VOLT
1	2.5/1.0	13	STRQ
2	2.5/1.1	14	1.2/1.2
3	2.5/1.1	15	1.5/2.0
4	GND	16	1.5/0.6
5	12.1	17	0/1.2
6	12.1	18	2.5/2.0
7	12.1	19	1.5/1.6
8	0/5.0	20	0/12
9	3.9/3.9	21	4.0/3.7
10	FM IF	22	4.0/3.7
11	AM IF	23	4.0/3.7
12	3.1/3.1	24	3.1/2.3

IC02:LA3410(ST/MO)

NO.	VOLT	NO.	VOLT
1	11.5	9	0.5/4.8
2	3.0	10	3.0/4.8
3	3.0	11	3.0
4	4.8	12	3.0
5	3.0	13	3.0
6	3.0	14	3.0
7	4.8	15	3.0
8	GND	16	3.5

IC03:NJM2068M

NO.	VOLT
1	14.0
2	7.0
3	7.0
4	7.0
5	GND
6	7.0
7	7.0
8	7.0
9	14.0

IC04:LC72131M (FM/AM)

NO.	VOLT	NO.	VOLT
1	7.2MHz	11	IF IN
2	CE	12	4.8
3	DATA I	13	AM OSC
4	CK	14	FM OSC
5	DATA O	15	4.8
6	NC	16	1.2
7	0/15	17	1.2
8	0/1.5	18	V.T
9	0/5.6	19	GND
10	NC	20	7.2MHz

IC05:BFU1923F(RDS)

NO.	VOLT	NO.	VOLT
1	1.6	9	OPEN
2	1.5	10	OPEN
3	OPEN	11	OPEN
4	1.5	12	0
5	2.4	13	DATA
6	2.5	14	CLOCK
7	3.0	15	1.5
8	1.2	16	1.1

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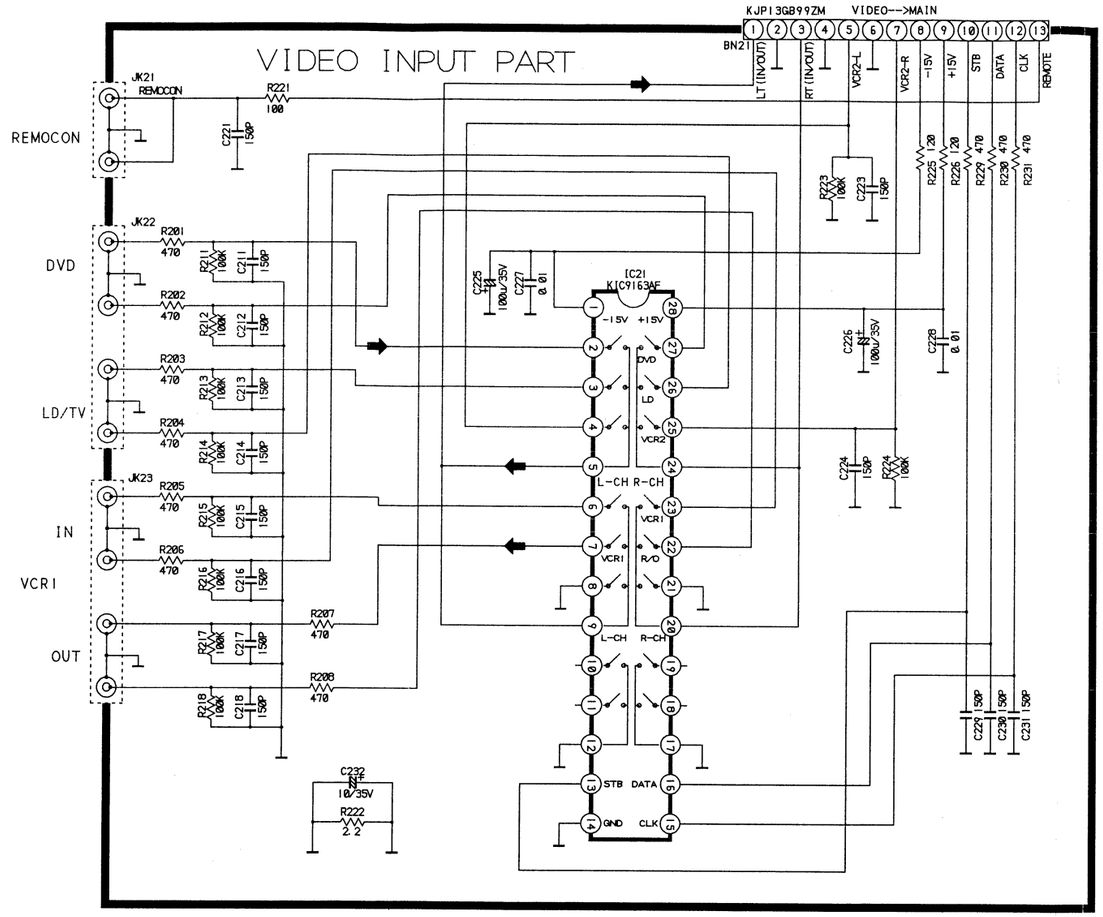
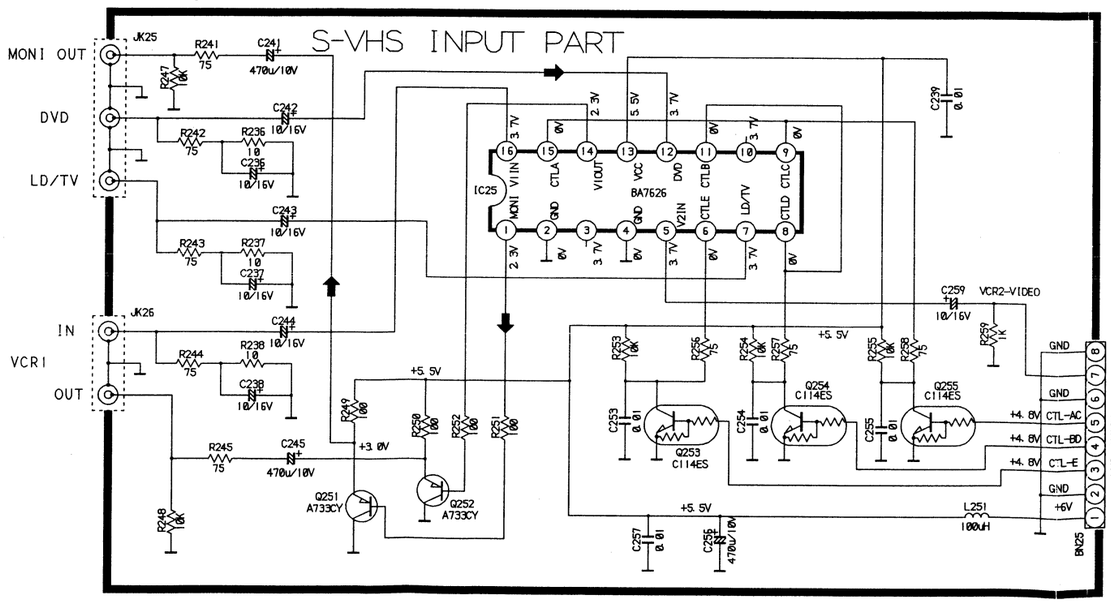
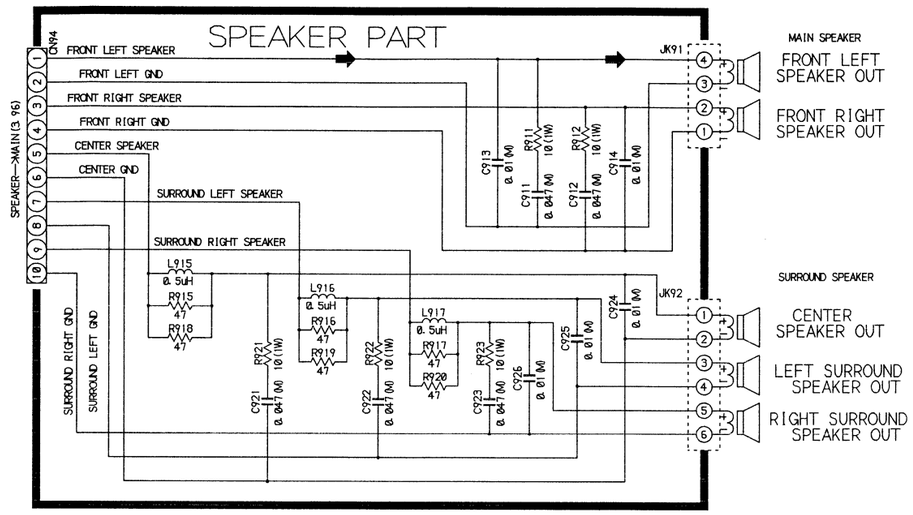
Video Input



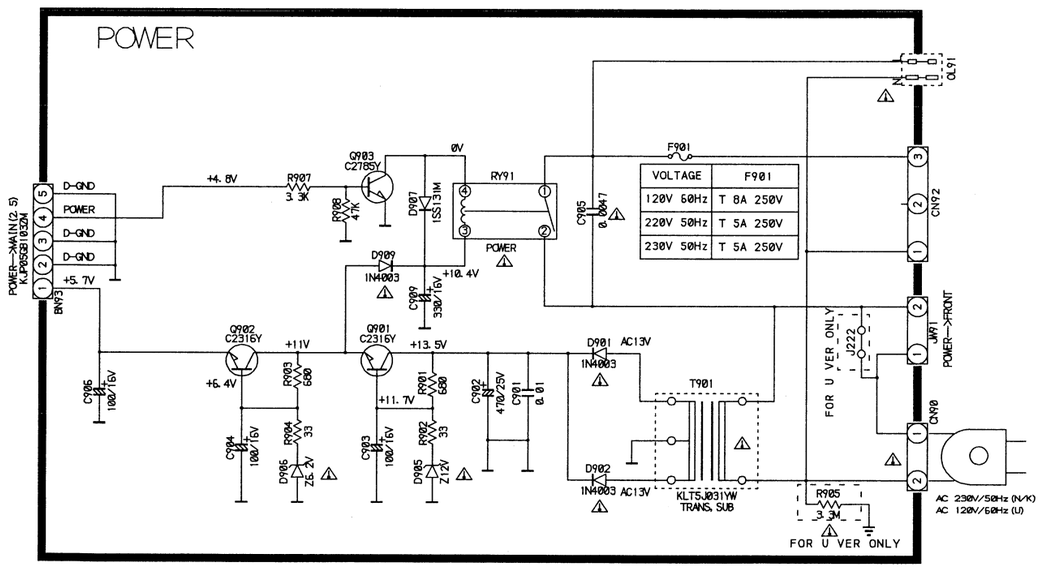
S-VHS Input



Speaker



µ-Com Power Supply / Standby



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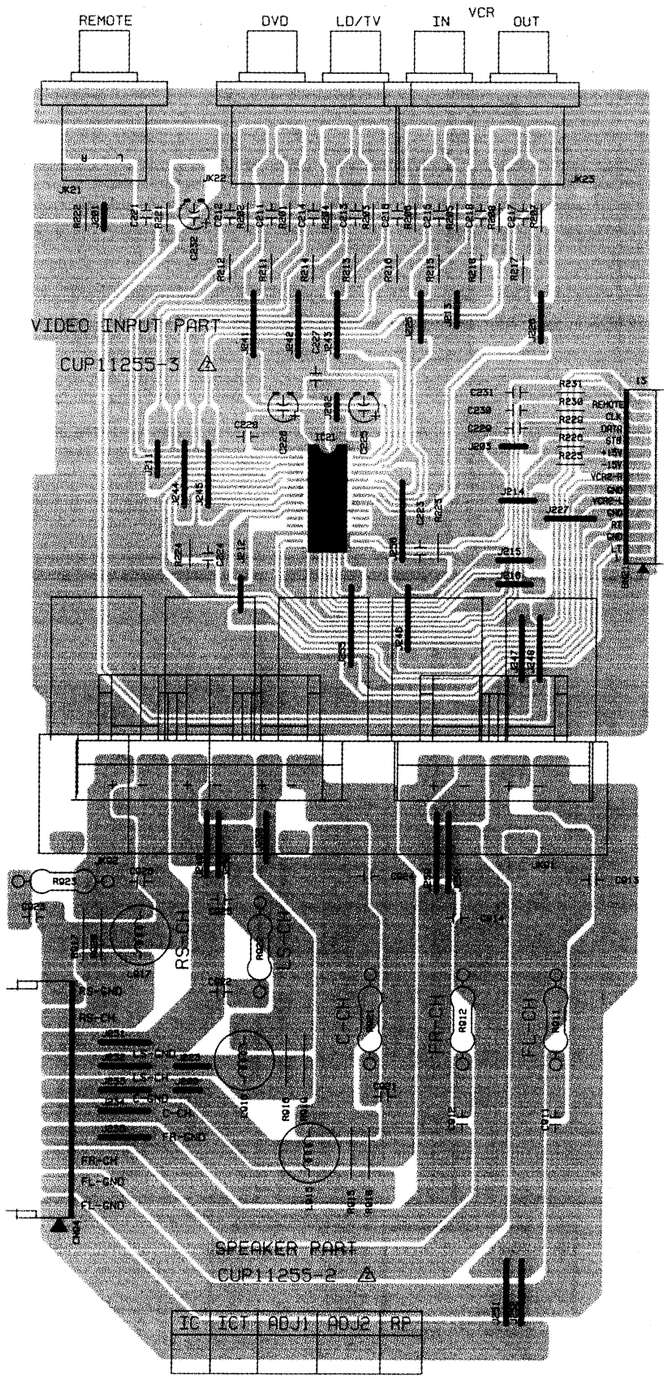
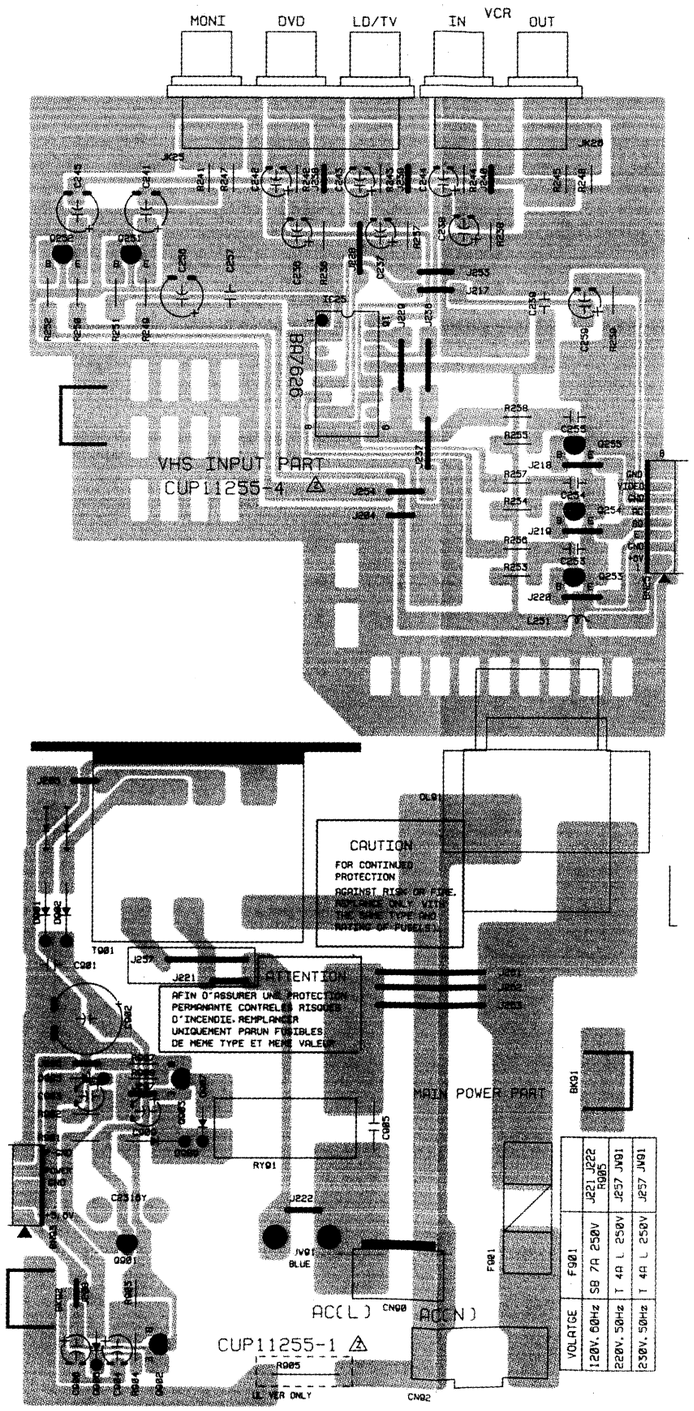
Video Input Board



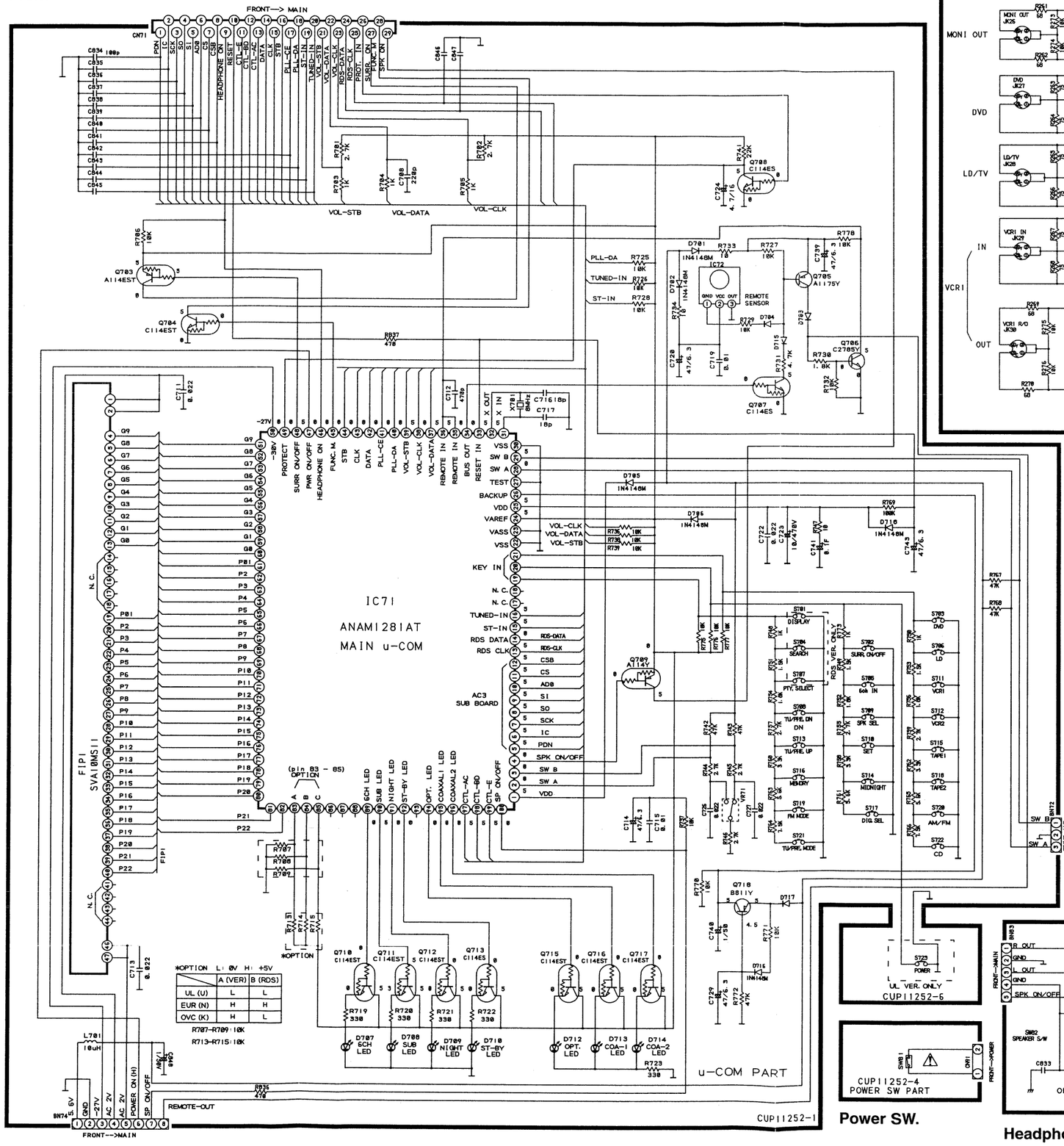
Speaker Board

S-VHS Input Board

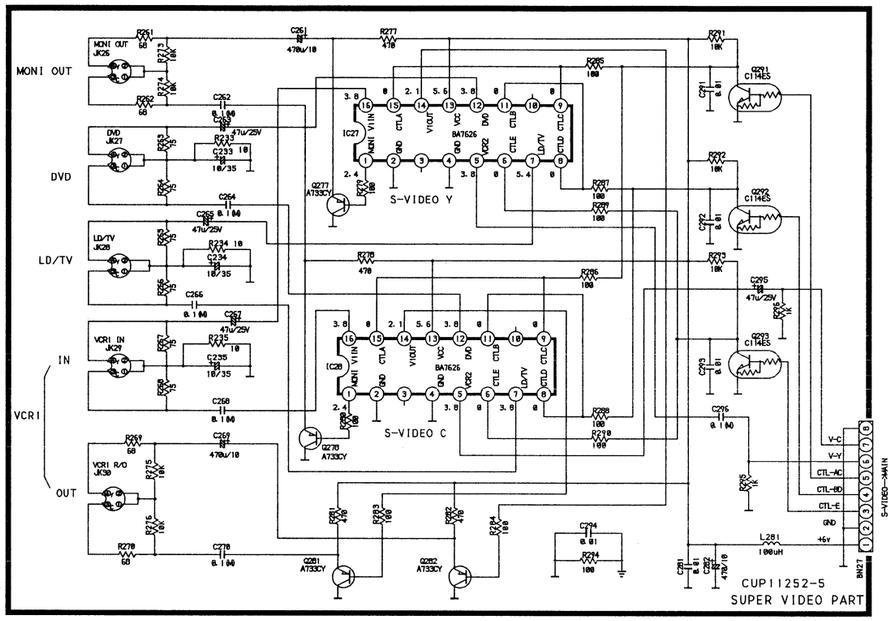


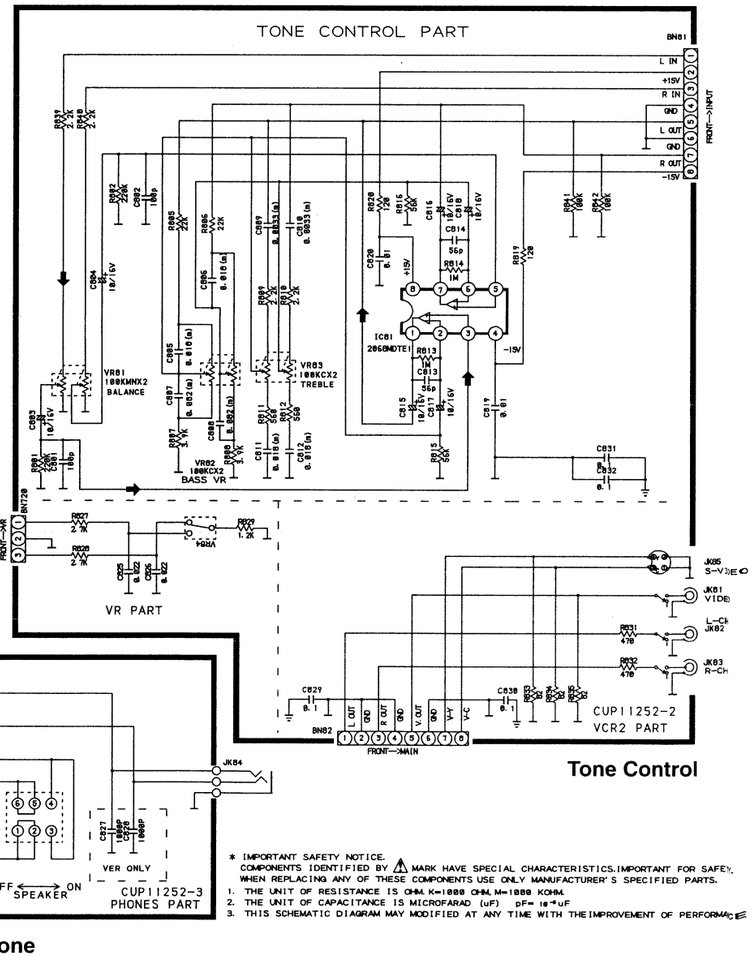
µ-Com Power Supply / Standby Board

Front



S-Video

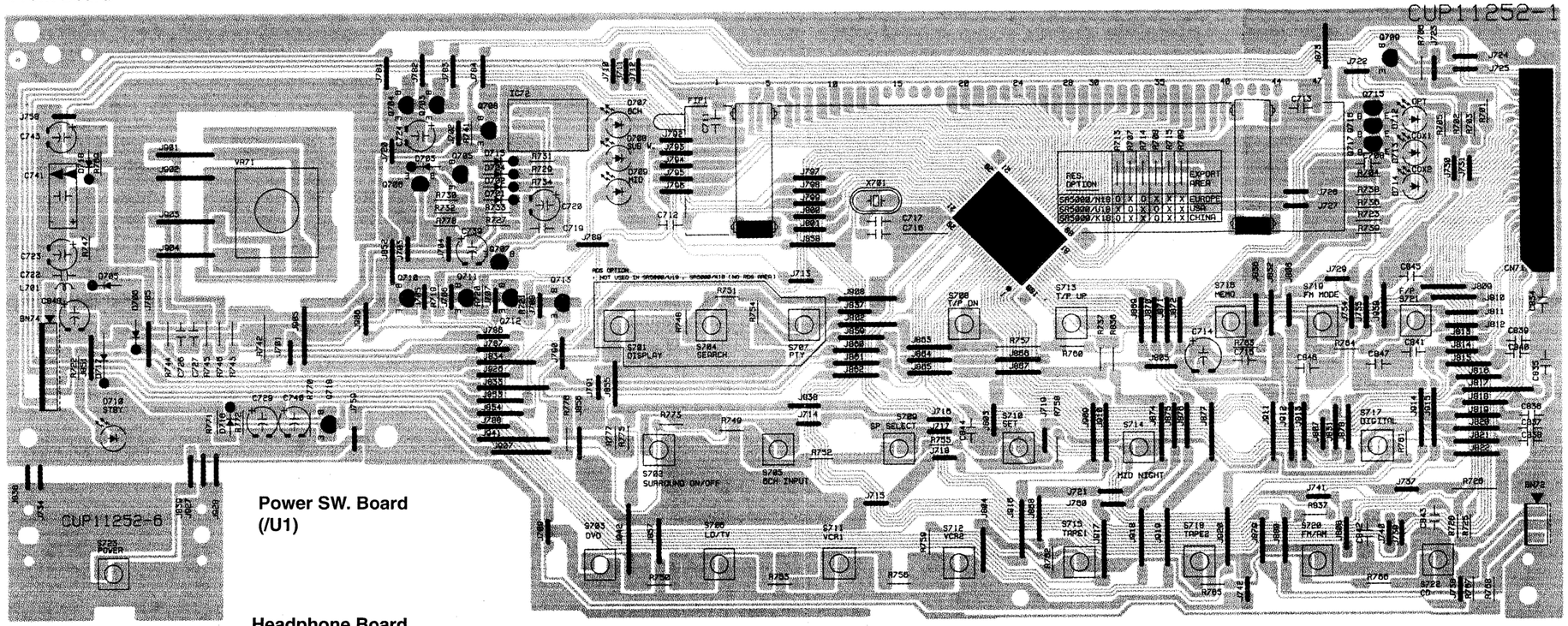



TONE CONTROL PART
VR PART
CUP11252-2
VCR2 PART
Tone Control
UL VER. ONLY
CUP11252-6
CUP11252-4
POWER SW PART
Power SW.
SPEAKER S/W
CUP11252-3
PHONES PART
Headphone
* IMPORTANT SAFETY NOTICE.
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS.IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
1. THE UNIT OF RESISTANCE IS OHM, K=1000 OHM, M=1000 KOHM.
2. THE UNIT OF CAPACITANCE IS MICROFARAD (UF) PF= 10^-6 UF.
3. THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THEIMPROVEMENT OF PERFORMANCE.

Q704 Q703 Q708 IC72
Q706 Q705 Q707
Q715 Q709
Q716
Q717

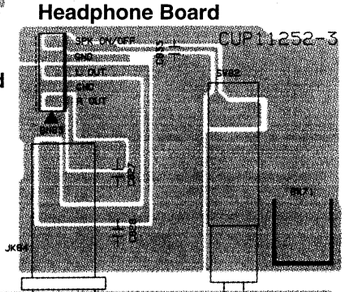
Q718 Q710 Q711 Q712 Q713 IC71

Front Board

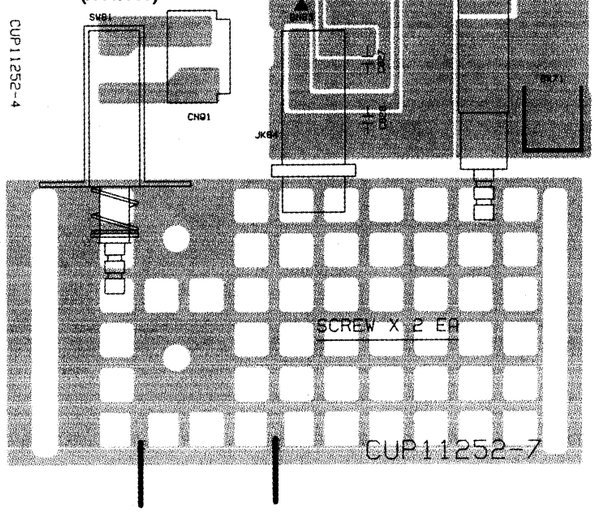


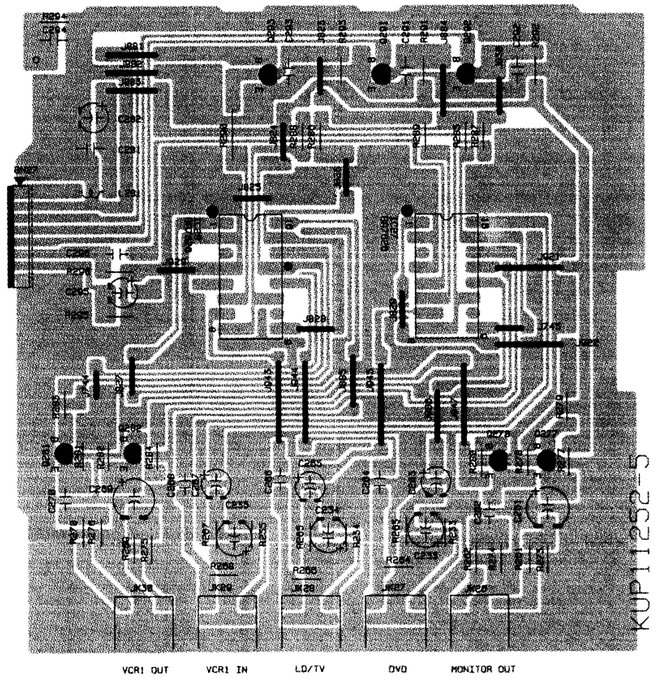
Power SW. Board (/U1)

Headphone Board



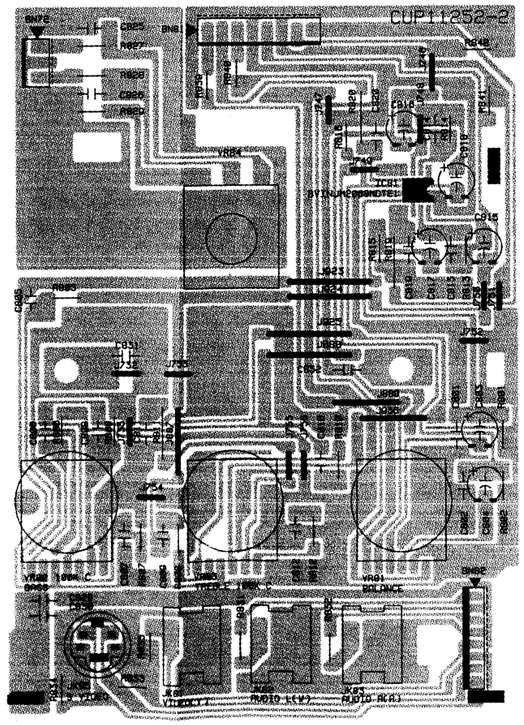
Power SW. Board (/N1/K1)





S-Video Board

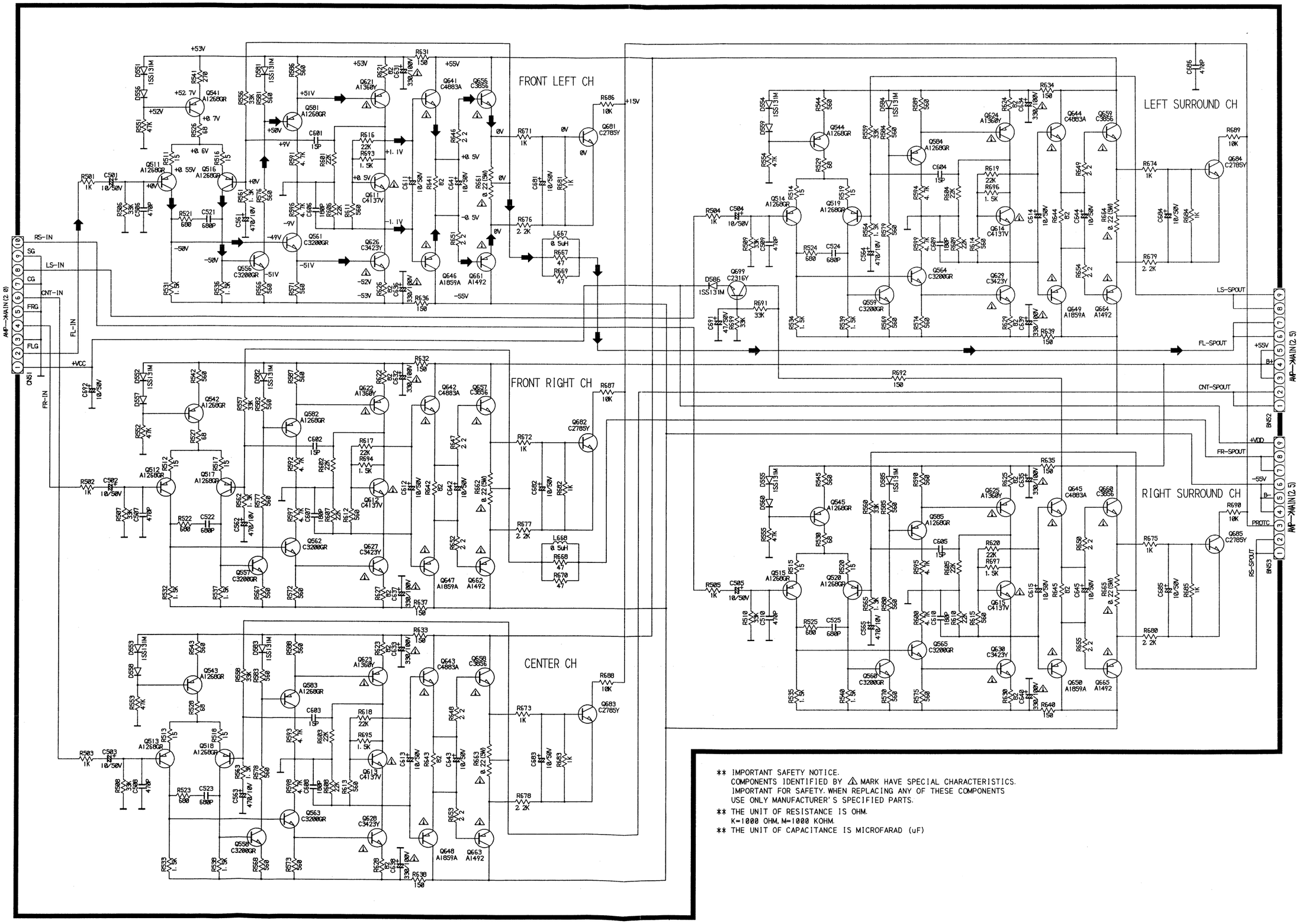
Q281 Q282 IC28 Q293 Q291 IC27 Q292 Q278 Q277



Tone Control Board

IC81

Power Amp



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IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS
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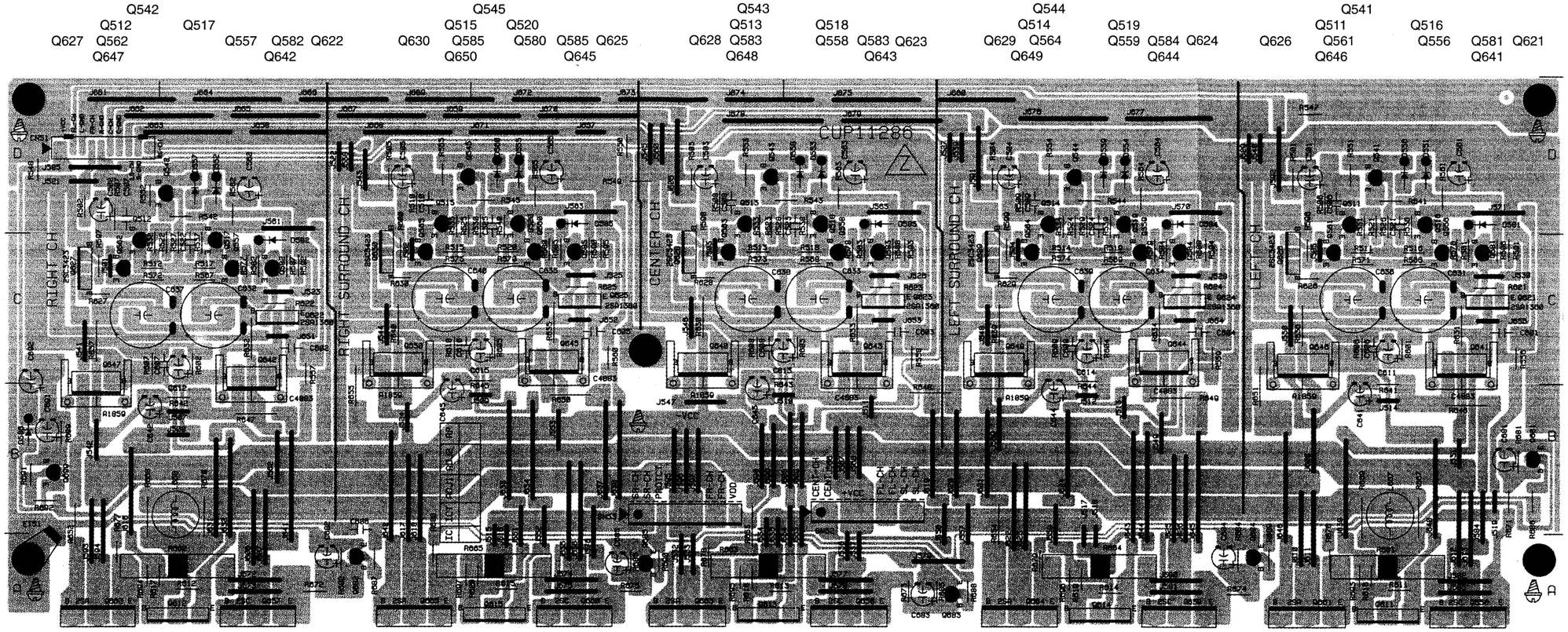
** THE UNIT OF RESISTANCE IS OHM.
K=1000 OHM, M=1000 KOHM.

** THE UNIT OF CAPACITANCE IS MICROFARAD (uF)

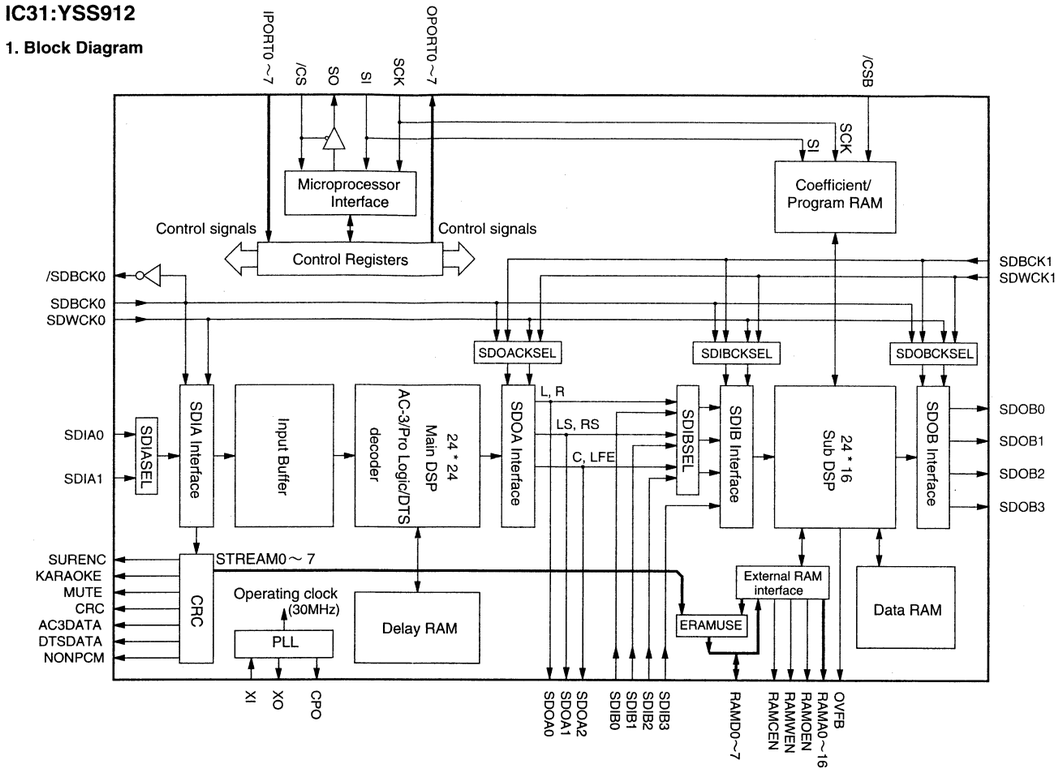
Power Amp Board



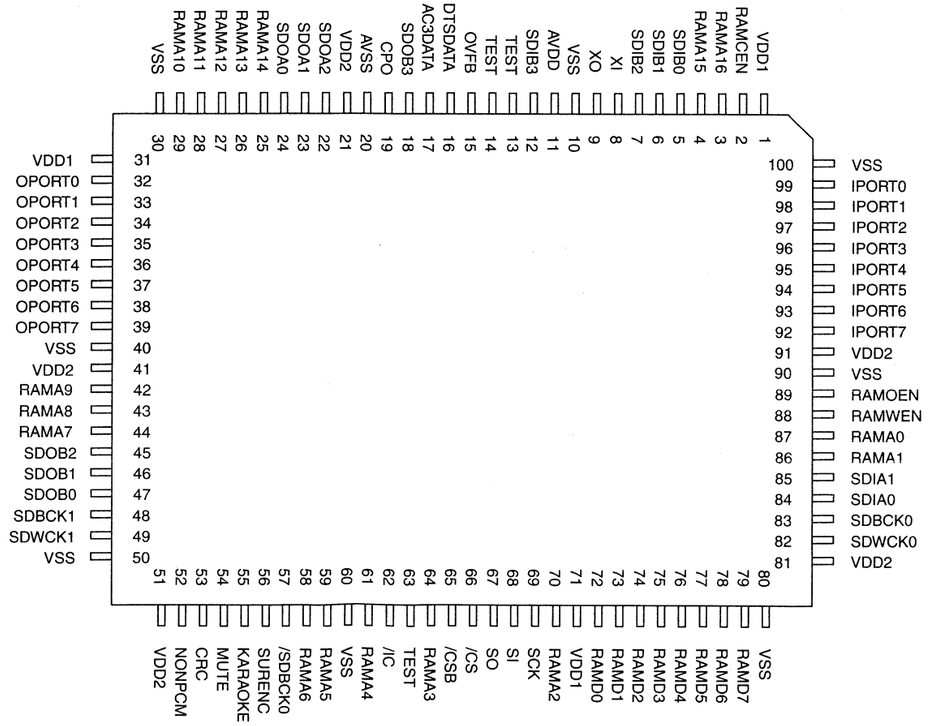
5. MICROPROCESSOR AND IC DATA

IC31:YSS912

1. Block Diagram



2. Pin Configuration



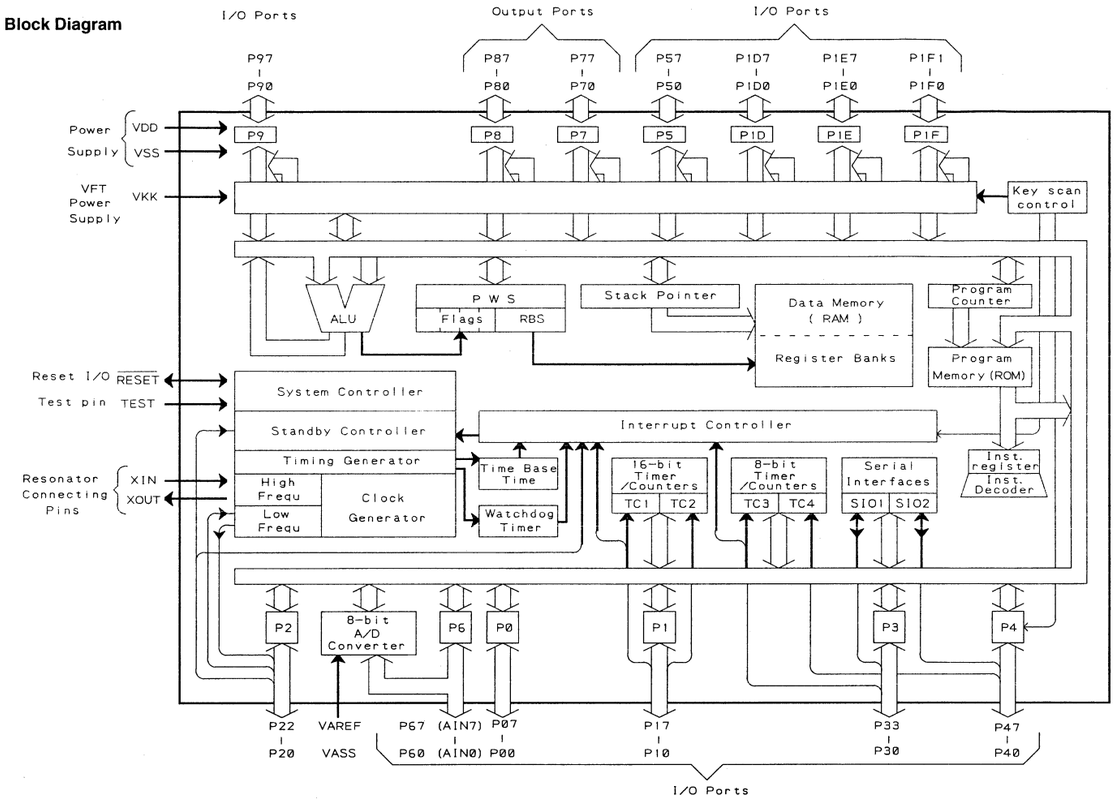
3. Pin Functions

No.	Name	I/O	FUNCTION
1	VDD1	-	+5V power supply (for I/Os)
2	RAMCEN	O	External SRAM interface /CE
3	RAMA16	O	External SRAM interface address 16
4	RAMA15	O	External SRAM interface address 15
5	SDIB0	I+	PCM input 0 to Sub DSP
6	SDIB1	I+	PCM input 1 to Sub DSP
7	SDIB2	I+	PCM input 2 to Sub DSP
8	XI	I	Crystal oscillator connection (12.288 MHz)
9	XO	O	Crystal oscillator connection
10	VSS	-	Ground
11	AVDD	-	+3.3V power supply (for PLL circuit)
12	SDIB3	I+	PCM input 3 to Sub DSP
13	TEST		Test terminal (to be open in normal use)
14	TEST		Test terminal (to be open in normal use)
15	OVFB	O	Detection of overflow at Sub DSP
16	DTSDATA	O	Detection of DTS data
17	AC3DATA	O	Detection of AC-3 data
18	SDOB3	O	PCM output from Sub DSP
19	CPO	A	Output terminal for PLL, to be connected to ground through the external analog filter circuit
20	AVSS	-	Ground (or PLL circuit)
21	VDD2	-	+3.3V power supply (for core logic)
22	SDOA2	O	PCM output from Main DSP (C, LFE)
23	SDOA1	O	PCM output from Main DSP (LS, RS)
24	SDOA0	O	PCM output from Main DSP (L, R)
25	RAMA14	O	External SRAM interface address 14
26	RAMA13	O	External SRAM interface address 13
27	RAMA12	O	External SRAM interface address 12
28	RAMA11	O	External SRAM interface address 11
29	RAMA10	O	External SRAM interface address 10
30	VSS	-	Ground
31	VDD1	-	+5V power supply (for I/Os)
32	OPORT0	O	Output port for general purpose
33	OPORT1	O	Output port for general purpose
34	OPORT2	O	Output port for general purpose
35	OPORT3	O	Output port for general purpose
36	OPORT4	O	Output port for general purpose
37	OPORT5	O	Output port for general purpose
38	OPORT6	O	Output port for general purpose
39	OPORT7	O	Output port for general purpose
40	VSS	-	Ground
41	VDD2	-	+3.3V power supply (for core logic)
42	RAMA9	O	External SRAM interface address 9
43	RAMA8	O	External SRAM interface address 8
44	RAMA7	O	External SRAM interface address 7
45	SDOB2	O	PCM output from Sub DSP
46	SDOB1	O	PCM output from Sub DSP
47	SDOB0	O	PCM output from Sub DSP
48	SDBCK1	I+	Bit clock input for SDOA, SDIB, SDOB
49	SDWCK1	I+	Word clock input for SDOA, SDIB, SDOB
50	VSS	-	Ground
51	VDD2	-	+3.3V power supply (for core logic)
52	NONPCM	O	Detection of non-PCM data
53	CRC	O	Detection of AC-3 CRC error
54	MUTE	O	Detection of auto mute
55	KARAOKE	O	Detection of AC-3 karaoke data
56	SURENC	O	Detection of AC-3 2/0 mode Dolby surround encoded input
57	/SDBCK0	O	Inverted SDBCK0 colck output (refer to Block diagram)
58	RAMA6	O	External SRAM interface address 6
59	RAMA5	O	External SRAM interface address 5
60	VSS	-	Ground
61	RAMA4	O	External SRAM interface address 4
62	/IC	Is	Initial clear
63	TEST		Test terminal (to be open in normal use)
64	RAMA3	O	External SRAM interface address 3
65	/CSB	Is+	Sub DSP Chip select
66	/CS	Is	Microprocessor interface Chip select input
67	SO	Ot	Microprocessor interface Serial data output
68	SI	Is	Microprocessor interface / Sub DSP Serial data input
69	SCK	Is	Microprocessor interface / Sub DSP clock input
70	RAMA2	O	External SRAM interface address 2
71	VDD1	-	+5V power supply (for I/Os)
72	RAMD0	I+/O	External SRAM interface data (STREAM0 output when External SRAM is not in use)
73	RAMD1	I+/O	External SRAM interface data (STREAM1 output when External SRAM is not in use)
74	RAMD2	I+/O	External SRAM interface data (STREAM2 output when External SRAM is not in use)
75	RAMD3	I+/O	External SRAM interface data (STREAM3 output when External SRAM is not in use)
76	RAMD4	I+/O	External SRAM interface data (STREAM4 output when External SRAM is not in use)
77	RAMD5	I+/O	External SRAM interface data (STREAM5 output when External SRAM is not in use)
78	RAMD6	I+/O	External SRAM interface data (STREAM6 output when External SRAM is not in use)
79	RAMD7	I+/O	External SRAM interface data (STREAM7 output when External SRAM is not in use)
80	VSS	-	Ground
81	VDD2	-	+3.3V power supply (for core logic)
82	SDWCK0	I	Word clock input for SDIA, SDOA, SDIB, SDOB
83	SDBCK0	I	Bit clock input for SDIA, SDOA, SDIB, SDOB
84	SDIA0	I	AC-3 bitstream (or PCM) data input for Main DSP
85	SDIA1	I	AC-3 bitstream (or PCM) data input for Main DSP
86	RAMA1	O	External SRAM interface address 1
87	RAMA0	O	External SRAM interface address 0
88	RAMWEN	O	External SRAM interface /WE
89	RAMOEN	O	External SRAM interface /OE
90	VSS	-	Ground
91	VDD2	-	+3.3V power supply (for core logic)
92	IPORT7	I+	Input port for general purpose
93	IPORT6	I+	Input port for general purpose
94	IPORT5	I+	Input port for general purpose
95	IPORT4	I+	Input port for general purpose
96	IPORT3	I+	Input port for general purpose
97	IPORT2	I+	Input port for general purpose
98	IPORT1	I+	Input port for general purpose
99	IPORT0	I+	Input port for general purpose
100	VSS	-	Ground

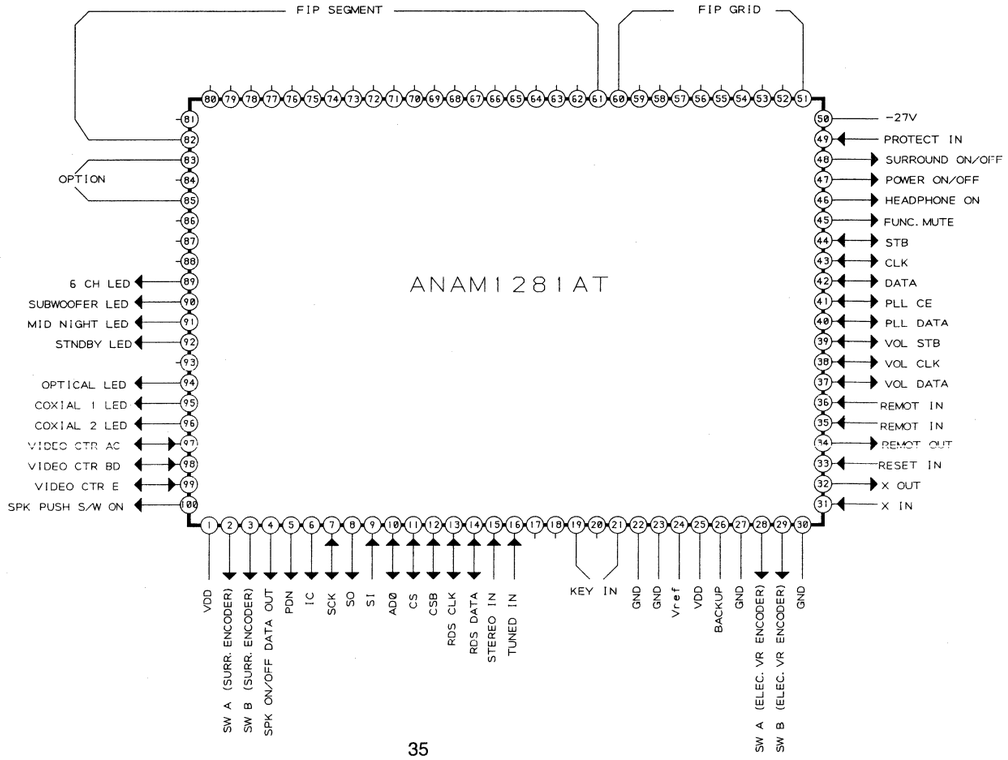
NOTE) Is : Schmidt trigger input terminal
I+ : Input terminal with a pull-up resistor
O : Digital output terminal
Ot : Tri-state digital output terminal
A : Analog terminal

IC71 : ANAMI1281AT

1. Block Diagram



2. Pin Configuration



3. Pin Functions

PIN NO.	SYMBOL	DESCRIPTION
1	VDD	+ 5V POWER SUPPLY.
2~3	SW A.B	SURROUND ENCODER CONTROL BY THE UP/DOWN.
4	SPK ON/OFF	SWITCHING THE SPEAKER OUTPUT.
5	PDN	"L"ALL INTERNAL STATE ARE RESET INCLUDE THE CONTROL PORT.
6	IC	INITIAL CLEAR
7	SCK	MICOM INTERFACE/SUB DSP CLK INPUT
8	SO	MICOM INTERFACE/SERIAL DATA OUTPUT.
9	SI	MICOM INTERFACE/SUB DSP SERIAL DATA INPUT.
10	AD0	ADDRESS BIT "0".
11	CS	UCOM INTERFACE/CHIP SELECT INPUT.
12	CSB	SUB DSP CHIP SELECT.
13	RDS_CLK	TUNER RDS CLOCK OUT
14	RDS_DATA	TUNER RDS DATA OUT
15	STEREO_IN	INPUT FOR DETECTING FM STEREO.(AT"L".IT IS ACTIVE.)
16	TUNED_IN	INPUT FOR DETECTING THE STATION DURING TUNING. WHEN THE STATION IS DETECTED,"L"IS INPUTTED.
17~18	NC	NOT USED!
19~21	KEY IN	DATA INPUT FOR KEY SCAN.
22~23	GND	GROUND.
24	Vref	VOLTAGE FOR REFERENCE.
25	VDD	+5V POWER SUPPLY.
26	BACKUP	IF PORT IS "L", POWER IS OFFED AND LAST MEMORY IS ACTIVATED
27	GND	GROUND.
28~29	SW A.B	ELECTRIC VOLUME ENCODER CONTROL BY THE UP/DOWN.
30	GND	GROUND.
31	X_IN	INPUT FOR CRYSTAL OSCILATOR.
32	X_OUT	OUTPUT FOR CRYSTAL OSCILATOR.
33	RESET	INPUT FOR RESETTING CPU.(AT "L", IT IS ACTIVE(RESET).)
34	REMOTE OUT	OUTPUT FOR REMOTE CONTROL DATA.
35~36	REMOTE_IN	INPUT FOR REMOTE CONTROL DATA.
37	VOL_DATA	VOL DATA OUTPUT
38	VOL_CLK	VOL CLOCK OUT
39	VOL_STB	VOL STROBE
40	PLL_DATA	TUNER PLL DATA IN/OUT
41	PLL_CE	TUNER PLL CHIP ENABLE PORT
42	DATA	FUNCTION DATA OUTPUT
43	CLK	FUNCTIONCLOCK OUT
44	STB	FUNCTION STROBE
45	MUTE	MUTING WHEN CHANGE THE FUNCTION BUTTON.
46	HEADPHONE ON	INPUT FOR HEADPHONE.(AT "H",IT IS ACTIVE)
47	POWER ON	WHEN THE POWER IS "H",IT IS ACTIVE.
48	SURR. ON/OFF	SWITCHING THE SURROUND ON/OFF.
49	PROTECT_IN	SIGNAL INPUT FOR PROTECTION.(AT "H",IT IS ACTIVE)
50	-27V	-27V POWER SUPPLY FOR FIP.
51~60	FIP GRID	PORTS FOR FIP GRID.
61~82	FIP SEGMENT	PORTS FOR FIP SEGMENT.
83	OPTION	AREA OPTION ("H" IS EUR AREA, "L" IS USA AREA.)
84	OPTION	RDS OPTION ("H" IS RDS ON , "L" IS RDS OFF.)
85~86	OPTION	NOT USED!
86~88	NC	NOT USED!
89	6-CH_LED	INDICATING DURING THE 6 CH INPUT.(AT "H",IT IS ACTIVE)
90	SUBWOOFER_LED	INDICATING DURING THE SUBWOOFER ON.(AT "H",IT IS ACTIVE)
91	MIDNIGHT_LED	INDICATING DURING THE MID NIGHT MODE.(AT "H",IT IS ACTIVE)
92	STBY_LED	INDICATING DURING THE STANDBY MODE.(AT "H",IT IS ACTIVE)
93	NC	NOT USED!
94	OPT_LED	INDICATING DURING THE OPTICAL INPUT.(AT "H",IT IS ACTIVE)
95	COAX1_LED	INDICATING DURING THE COAXIAL1 INPUT.(AT "H",IT IS ACTIVE)
96	COAX2_LED	INDICATING DURING THE COAXIAL2 INPUT.(AT "H",IT IS ACTIVE)
97	CTL-AC	VIDEO FUNCTION IC CONTROL PORT "A","C".
98	CTL-BD	VIDEO FUNCTION IC CONTROL PORT "B","D".
99	CTL-E	VIDEO FUNCTION IC CONTROL PORT "E".
100	SPK S/W_IN	SPEAKER PUSH S/W ON DATA IN PORT.

6. ADJUSTMENT PROCEDURE

ALIGNMENT INSTRUCTIONS

(1) EQUIPMENT NEEDED

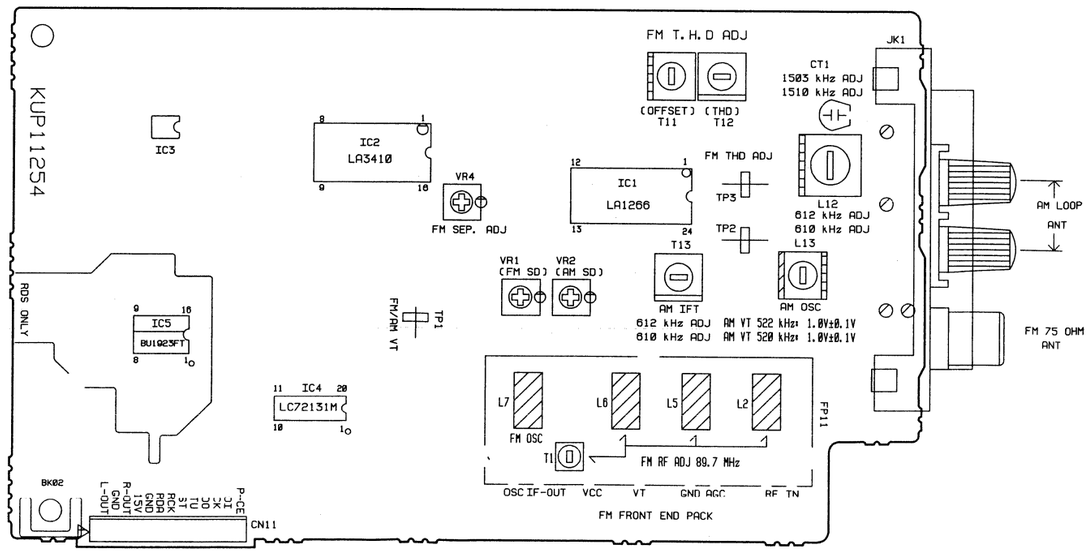
AM Standard Signal Generator
FM Standard Signal Generator
Oscilloscope
VTVM (AC,DC)
AM Test Loop Antenna (AM Adjustment)
FM Dummy Antenna (FM Adjustment)
Stereo Signal Generator (RDS IN : EUROPE ONLY)
Frequency Counter
Distortion Analyser

IMPORTANT

1.Check power-source voltage.
2.Set the function switch to band aligned.
3.Keep the signal input as low as possible to adjust accurately.
4.Modulation and modulation frequency.

Band \ Item	Modulation	Modulation freq.
AM	30 %	400 Hz
FM (EUR, OVC) SR5000/N1B SR5000/K1B	MONO : 40 kHz DEV.	1 kHz
	STERO : L=R (40 kHz), PILOT (7.5 kHz) 47.5 kHz DEV.	
	RDS : STEREO + RDS (1.2 kHz) 48.7 kHz DEV.	
FM (USA) SR5000/U1B	MONO : 75 kHz DEV. (100 %)	1 kHz
	DTEREO : L=R (67.5 kHz), PILOT (7.5 kHz)	

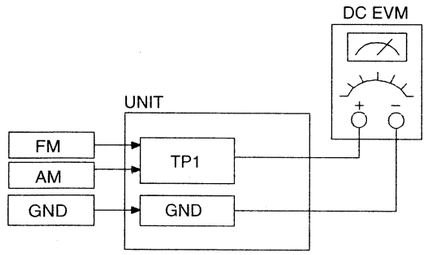
TUNER ADJUSTMENT POINT



(2) FM, AM TRACKING VOLTAGE ADJUSTMENTS

AM,FM DC Voltmeter : Connect to test point TP1 and GND

NO	Band	Frequency	Adjust for	Adjustment
1	FM	87.50 MHz	1.6V	L7
2	AM	522 kHz	1.0V	L13
	AM	520 kHz	1.0V	L13



(3) AM RF ADJUSTMENTS

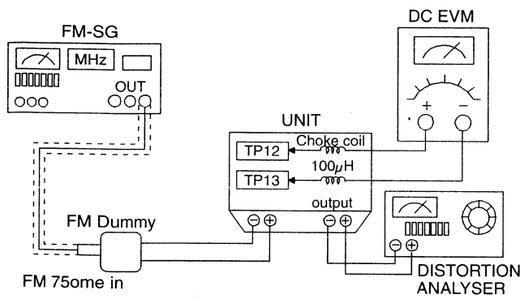
Signal generator : Connect to the AM Ant.
Coil through the loop antenna.
Adjust for the indication of VTVM of the wave form of scope to be maximum.

/N1B, /K1B

Band	NO	Frequency	Adjust for	Adjustment
AM	1	612 kHz	Max sensitivity	L12,T13
	2	1503 kHz	Max sensitivity	CT1
	3	Repeat steps 1 and 2 several times.		

/U1B

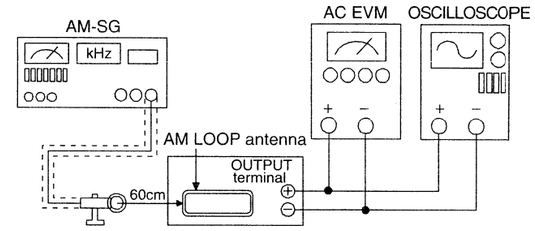
Band	NO	Frequency	Adjust for	Adjustment
AM	1	610kHz	Max sensitivity	L12,T13
	2	1510 kHz	Max sensitivity	CT1
	3	Repeat steps 1 and 2 several times.		



(4) FM RF ADJUSTMENTS

Signal generator : Connect to FM Ant. (FM 75 ohm) through the dummy.
Adjust for indication of VTVM of the wave form of scope to be maximum.

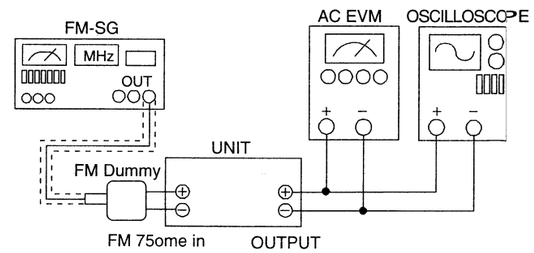
Band	NO	Frequency	Adjust for	Adjustment
FM	1	100.10 MHz	Max sensitivity	L2,L5,L6,T1
	3	Repeat steps 1 several times.		



(5) FM MONO DISTORTION ADJUSTMENTS

Signal Generator : Connect to FM Ant. (FM 75 ohm) through the dummy.
DC Voltmeter : Connect to TP2(+),TP3(-) through the choke coil (100uH).
Distortion Meter : Connect to output L or R.

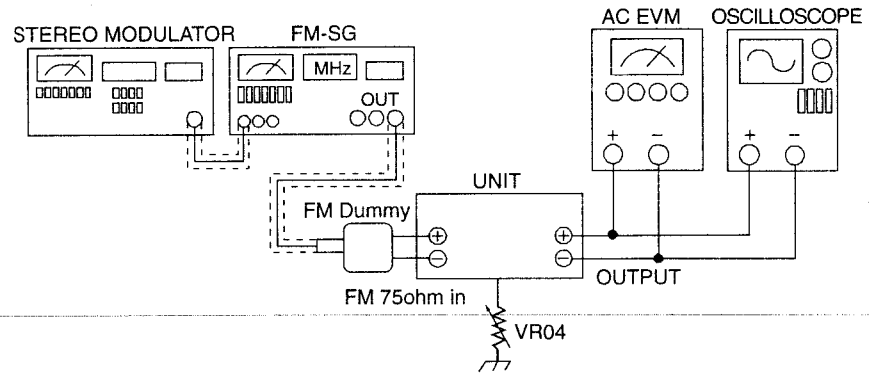
Band	NO	Frequency	Adjust for	Adjustment
FM	1	100.10 MHz	DC Voltmeter 0V	T11
	2	100.10 MHz	Minimum T.H.D	T12
	3	Repeat steps 1 and 2 several times.		



(6) FM STEREO SEPARATION ADJUSTMENT

Signal Generator : Connect to FM Ant. (FM 75 ohm) through the dummy.

Band	Frequency	SSG Condition	Adjust for	Adjustment
FM	100.10 MHz	Moudulation : L or R only	Different of R or Lmust be maximum	VR4
		Modulation Frequency : 1 kHz		
		Output Level : 66 dB		



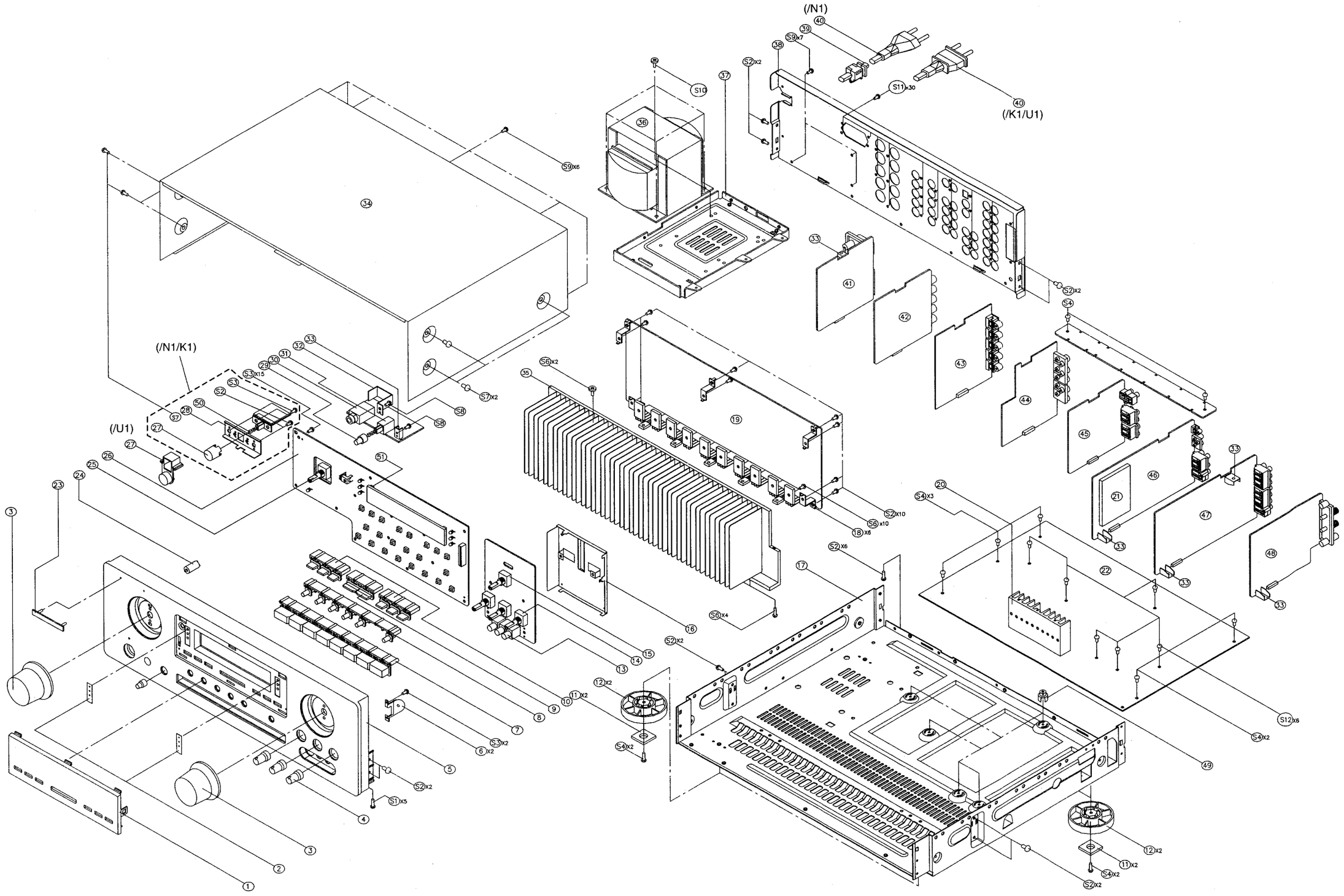
(7) AM, FM AUTO LEVEL ADJUSTMENT

Signal Generator : Connect to FM Ant. (FM 75 ohm) through the dummy.
Connect to the AM Ant. Coil thriugh the Loop antenna.

Band	Step	Signal Generator	Adjust for	Adjustment
FM	1	100.10 MHz 30dB	TUNED Display off	VR1
	2	100.10 MHz 30dB	TUNED Display on	VR1
AM	1	990 kHz 76dB	TUNED Display off	VR2
	2	990 kHz 76dB	TUNED Display on	VR2

7. EXPLODED VIEW AND PARTS LIST

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
1	/K1/U1		WINDOW FIP	285W158020
1	/N1		WINDOW FIP	285W158010
2		nsp	SHEET ORNAMENT	nsp
3	BLK	9965 000 01988	KNOB VOLUME	285W154010
3	GLD		KNOB VOLUME	285W154110
4	BLK	9965 000 02004	KNOB BALANCE	285W154020
4	GLD		KNOB BALANCE	285W154120
5	BLK	9965 000 02005	PANEL FRONT	285W248010
5	GLD		PANEL FRONT	285W248110
6		nsp	BRACKET TOP	nsp
7	BLK	9965 000 02006	KNOB FUNCTION	285W270020
7	GLD		KNOB FUNCTION	285W270120
8	BLK		KNOB SURROUND	285W270050
8	GLD		KNOB SURROUND	285W270150
9		9965 000 02008	KNOB TUNING	285W270040
10		9965 000 02009	KNOB DISPLAY	285W270030
11		nsp	RUBBER CUSHION	nsp
12		4822 462 11013	FOOT	243W057010
16		nsp	COVER SHIELD	nsp
17		nsp	CHASSIS BOTTOM	nsp
23		4822 454 11825	BADGE MARANTZ	185J251012
24		9965 000 01244	INDICATOR	285W355010
27	/K1B/N1B	9965 000 01291	KNOB POWER	285W270010
27	/K1G		KNOB POWER	285W270110
27	/U1B		KNOB POWER	281W270010
27	/U1G		KNOB POWER	281W270110
28	/N1/K1	nsp	BRACKET POWER	nsp
29	BLK	9965 000 01289	KNOB SPEAKER	285W270060
29	GLD		KNOB SPEAKER	285W270160
32		nsp	BRACKET PCB	nsp
34		nsp	CABINET TOP	nsp
⚠ 36	/N1/K1	9965 000 02010	TRANS MAINS 230V	*TS001130R
⚠ 36	/U1		TRANS MAINS 120V	*TS001140R
37		nsp	BRACKET TRANS	nsp
38	/K1	nsp	PANEL REAR	nsp
38	/N1	nsp	PANEL REAR	nsp
38	/U1	nsp	PANEL REAR	nsp
39		nsp	BUSHING MAINS CORD	nsp
⚠ 40	/U1		CORD MAINS UL/CSA 10A 250V	*YC000380R
⚠ 40	/K1		CORD MAINS CHINA/CCEE 10A 250V	*YC000400R
⚠ 40	/N1	9965 000 02011	CORD MAINS EUR 10A 250V	*YC000390R
49		nsp	HOLDER PCB	nsp
S1				
∫		nsp	SCREW	nsp
S4				
S10		nsp	SCREW	nsp
S11		nsp	SCREW	nsp
S12		nsp	SCREW	nsp
			PACKING	
001T	/N1/K1	9965 000 02012	MANUAL INSTRUCTION	285W851310
001T	/U1		MANUAL INSTRUCTION	285W851250
001Z		9965 000 02013	REMOTE CONTROL UNIT (RC5000SR)	ZK285W0010
			NOT STANDARD SPEAR PARTS	
		nsp	BOX OUT CARTON	285W801010
		nsp	PAD SNOW	285W809010
	/U1	nsp	ADAPTOR 300 OHM	nsp
		nsp	AM LOOP ANT ASS'Y	nsp
	/U1	nsp	ANT FM T	nsp
	/N1/K1	nsp	ANT FM WIRE	nsp


(/N1)
(/K1/U1)
(/N1/K1)
(/U1)

8. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R＊＊＊ : 1) GD05 x x x 140, Carbon film fixed resistor, ±5% 1/4W
R＊＊＊ : 2) GD05 x x x 160, Carbon film fixed resistor, ±5% 1/6W
→ ① Resistance value

Examples
① Resistance value

0.1Ω 001	10Ω 100	1kΩ 102	100kΩ 104
0.5Ω 005	18Ω 180	2.7kΩ 272	680kΩ 684
1Ω 010	100Ω 101	10kΩ 103	1MΩ 105
6.8Ω 068	390Ω 391	22kΩ 223	4.7MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C＊＊＊ : CERAMIC CAP.
3) DD1 x x x x 370, Ceramic capacitor
Disc type
Temp.coeff. P350~N1000, 50V
③ Capacity value
② Tolerance

Examples
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5 % 5
Tolerance of COMMON PARTS handled here are as follows :
0.5 pF - 5 pF ..... ± 0.25 pF
6 pF - 10 pF ..... ± 0.5 pF
12 pF - 560 pF ... ± 5 %
③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101	
1 pF 010	10 pF 100	220 pF 221	
1.5 pF 015	47 pF 470	560 pF 561	

C＊＊＊ : CERAMIC CAP.
4) DK16 x x x 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ Capacity value

Examples
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C＊＊＊ : 5) ELECTROLY CAP.(⧺), 6)FILM CAP (⧦)
5) EA x x x x x x 10, Electrolytic capacitor
One-way lead type, Tolerance ±20%
⑥ Working voltage
⑤ Capacity value

Examples
⑤ Capacity value

0.1μF 104	4.7μF 475	100μF 107
0.33μF 334	10μF 106	330μF 337
1μF 105	22μF 226	1100μF 118
2200μF 228		

⑥ Working voltage

6.3 V 006	25 V 025
10 V 010	35 V 035
16 V 016	50 V 050

6) DF15 x x x 350 → Plastic film capacitor
DF15 x x x 310 → One-way type, Mylar ±5% 50V
DF16 x x x 310 → Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ Capacity value

Examples
⑦ Capacity value

0.001μF (1000 pF) 102	0.1μF 104
0.0018μF 182	0.56μF 564
0.01μF 103	1μF 105
0.015μF 153	

NOTE 1) The above CODES(R＊＊＊ ,R＊＊＊ ,C＊＊＊ ,C＊＊＊ and C＊＊＊) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to "Common Parts List" for the other common parts(**RI05, DD4, DK4**).

NOTE ON SAFETYFOR FUSIBLE RESIST OR :

The suppliers and their type numbers of fusible resistors are as follows ;

1 . KOA Corporation

Part No.(MJI)	Type No.(KOA)	Description
NH05 x x x 140	RF25S x x x x Ω	J ±5% (1/4W)
NH05 x x x 120	RF50S x x x x Ω	J ±5% (1/2W)
NH85 x x x 110	RF73B2A x x x x Ω	J ±5% (1/10W)
NH95 x x x 140	RF73B2E x x x x Ω	J ±5% (1/4W)

＊ Resistance value　　Resistance value(0.1Ω - 10k Ω)

2. Matsushita Electronic Components Co., Ltd

Part No.(MJI)	Type No.(MEC)	Description
NF05 x x x 140	ERD-2FCJ x x x	(±5% 1/4W)
RF05 x x x 140		
NF02 x x x 140	ERD-2FCG x x x	(±2% 1/4W)
RF02 x x x 140		

＊Resistance value

Examples
＊Resistance value

0.1Ω 001	10Ω 100	1kΩ 102	100kΩ 104
0.5Ω 005	18Ω 180	2.7kΩ 272	680kΩ 684
1Ω 010	100Ω 101	10kΩ 103	1MΩ 105
6.8Ω 068	390Ω 391	22kΩ 223	4.7MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
μ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X' TAL	: CRYSTAL

NOTE ON SAFETY:

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠ Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

⚠ がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			FRONT (CUP11252)	
			CIRCUIT BOARD	
			CAPACITORS	
C233		nsp	ELECT 10μF 50V	nsp
C234		nsp	ELECT 10μF 50V	nsp
C235		nsp	ELECT 10μF 50V	nsp
C261		nsp	ELECT 470μF 10V	nsp
C262		nsp	FILM 0.1μF 50V J	nsp
C263		nsp	ELECT 10μF 50V	nsp
C264		nsp	FILM 0.1μF 50V J	nsp
C265		nsp	ELECT 10μF 50V	nsp
C266		nsp	FILM 0.1μF 50V J	nsp
C267		nsp	ELECT 10μF 50V	nsp
C268		nsp	FILM 0.1μF 50V J	nsp
C269		nsp	ELECT 470μF 10V	nsp
C270		nsp	FILM 0.1μF 50V J	nsp
C281		nsp	CER. 0.01μF 50V J	nsp
C282		nsp	ELECT 470μF 10V	nsp
C291		nsp	CER. 0.01μF 50V Z	nsp
C292		nsp	CER. 0.01μF 50V Z	nsp
C293		nsp	CER. 0.01μF 50V Z	nsp
C295		nsp	ELECT 0.1μF 50V J	nsp
C296		nsp	FILM 10μF 50V	nsp
C708		nsp	CER. 100pF 50V K	nsp
C711		nsp	CER. 0.022μF 50V Z	nsp
C712		nsp	CER. 100pF 50V K	nsp
C713		nsp	CER. 0.022μF 50V Z	nsp
C714		nsp	ELECT 47μF 6.3V	nsp
C715		nsp	CER. 0.01μF 50V Z	nsp
C716		nsp	CER. 18pF 50V J	nsp
C717		nsp	CER. 18pF 50V J	nsp
C719		nsp	CER. 0.01μF 50V Z	nsp
C720		nsp	ELECT 47μF 6.3V	nsp
C722		nsp	CER. 0.022μF 50V Z	nsp
C723		nsp	ELECT 470μF 10V	nsp
C724		nsp	ELECT 4.7μF 16V	nsp
C726		nsp	CER. 0.022μF 50V Z	nsp
C727		nsp	CER. 0.022μF 50V Z	nsp
C729		nsp	ELECT 47μF 25V	nsp
C739		nsp	ELECT 47μF 6.3V	nsp
C740		nsp	ELECT 1μF 50V	nsp
C741		9965 000 01510	BACK UP 0.1μF 5.5V	*EX000050R
C743		nsp	ELECT 47μF 25V	nsp
C801		nsp	CER. 100pF 50V K	nsp
C802		nsp	CER. 100pF 50V K	nsp
C803		nsp	ELECT 10μF 16V	nsp
C804		nsp	ELECT 10μF 16V	nsp
C805		nsp	FILM 0.018μF 63V J	nsp
C806		nsp	FILM 0.018μF 63V J	nsp
C807		nsp	FILM 0.082μF 63V J	nsp
C808		nsp	FILM 0.082μF 63V J	nsp
C809		nsp	FILM 0.0033μF 63V J	nsp
C810		nsp	FILM 0.0033μF 63V J	nsp
C811		nsp	FILM 0.018μF 63V J	nsp
C812		nsp	FILM 0.018μF 63V J	nsp
C813		nsp	CER. 56pF 50V J	nsp
C814		nsp	CER. 56pF 50V J	nsp
C815				
⟆		nsp	ELECT 10μF 16V	nsp
C818				
C819		nsp	CER. 0.01μF 50V Z	nsp
C820		nsp	CER. 0.01μF 50V Z	nsp
C825		nsp	CER. 0.022μF 50V Z	nsp
C826		nsp	CER. 0.022μF 50V Z	nsp
C827		nsp	CER. 1000pF 50V K	nsp
C828		nsp	CER. 1000pF 50V K	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C829				
⟆		nsp	CER. 0.1μF 50V Z	nsp
C833				
C834				
⟆		nsp	CER. 47pF 50V J	nsp
C841				
C842				
⟆		nsp	CER. 100pF 50V K	nsp
C847				
C848		nsp	ELECT 10μF 16V	nsp
C849		nsp	CER. 100pF 50V K	nsp
C850		nsp	CER. 100pF 50V K	nsp
C852		nsp	CER. 100pF 50V K	nsp
C853		nsp	CER. 100pF 50V K	nsp
C854		nsp	CER. 100pF 50V K	nsp
C856		nsp	ELECT 1μF 50V	nsp
C857				
⟆		nsp	CER. 100pF 50V K	nsp
C863				
C864		nsp	CER. 0.01μF 50V Z	nsp
C865		nsp	CER. 0.01μF 50V Z	nsp
			DIODES	
D701				
⟆		9965 000 01250	DIODE 1SS131M	*HD201290R
D706				
D707				
⟆		4822 130 11608	LED SLR342VCF02	*HI100810R
D710				
D712		4822 130 11608	LED SLR342VCF02	*HI100810R
D713		4822 130 11608	LED SLR342VCF02	*HI100810R
D714		4822 130 11608	LED SLR342VCF02	*HI100810R
D715		9965 000 01250	DIODE 1SS131M	*HD201290R
D716		9965 000 01250	DIODE 1SS131M	*HD201290R
D717		4822 130 30621	DIODE 1N4148	QP13030621
D718		9965 000 01250	DIODE 1SS131M	*HD201290R
D719		9965 000 01250	DIODE 1SS131M	*HD201290R
D720		9965 000 01250	DIODE 1SS131M	*HD201290R
			INTEGRATED CIRCUITS	
IC27		4822 209 17452	IC BA7626	HC10190210
IC28		4822 209 17452	IC BA7626	HC10190210
IC71		9965 000 02017	MICROPROCESSOR TMP87PM78F-E175	*HU100360R
IC72		4822 209 13744	IR SENSOR GP1U270R	*HW100420R
IC81		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
			TRANSISTORS	
Q277		4822 130 11624	KSA733CY	*HT100420R
Q278		4822 130 11624	KSA733CY	*HT100420R
Q281		4822 130 11624	KSA733CY	*HT100420R
Q282		4822 130 11624	KSA733CY	*HT100420R
Q291		4822 130 60588	DTC114ES	BA20010210
Q292		4822 130 60588	DTC114ES	BA20010210
Q293		4822 130 60588	DTC114ES	BA20010210
Q703		4822 130 61227	DTA114ES	BA10007210
Q704		4822 130 60588	DTC114ES	BA20010210
Q705		4822 130 11611	KSA1175Y	*HT100390R
Q706		4822 130 11609	KSC2785Y	*HT300590R
Q707		4822 130 60588	DTC114ES	BA20010210
Q708		4822 130 60588	DTC114ES	BA20010210
Q709		4822 130 61227	DTA114ES	BA10007210
Q710				
⟆		4822 130 60588	DTC114ES	BA20010210
Q713				
Q715		4822 130 60588	DTC114ES	BA20010210
Q716		4822 130 60588	DTC114ES	BA20010210
Q717		4822 130 60588	DTC114ES	BA20010210
Q718		4822 130 11613	KSB811Y	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			RESISTORS	
R233		nsp	10 Ω 1/5W J	nsp
R234		nsp	10 Ω 1/5W J	nsp
R235		nsp	10 Ω 1/5W J	nsp
R261		nsp	68 Ω 1/5W J	nsp
R262		nsp	68 Ω 1/5W J	nsp
R263				
∫		nsp	75 Ω 1/5W J	nsp
R268				
R269		nsp	68 Ω 1/5W J	nsp
R270		nsp	68 Ω 1/5W J	nsp
R273				
∫		nsp	10k Ω 1/5W J	nsp
R276				
R277		nsp	470 Ω 1/5W J	nsp
R278		nsp	470 Ω 1/5W J	nsp
R279		nsp	100 Ω 1/5W J	nsp
R280		nsp	100 Ω 1/5W J	nsp
R281		nsp	470 Ω 1/5W J	nsp
R282		nsp	470 Ω 1/5W J	nsp
R283				
∫		nsp	100 Ω 1/5W J	nsp
R289				
R290		nsp	120 Ω 1/4W J	nsp
R291		nsp	10k Ω 1/5W J	nsp
R292		nsp	10k Ω 1/5W J	nsp
R293		nsp	10k Ω 1/5W J	nsp
R295		nsp	1k Ω 1/5W J	nsp
R296		nsp	1k Ω 1/5W J	nsp
R703		nsp	1k Ω 1/5W J	nsp
R704		nsp	1k Ω 1/5W J	nsp
R705		nsp	1k Ω 1/5W J	nsp
R707	/U1	nsp	10k Ω 1/5W J	nsp
R708	/K1/U1	nsp	10k Ω 1/5W J	nsp
R713	/N1/K1	nsp	10k Ω 1/5W J	nsp
R714	/N1	nsp	10k Ω 1/5W J	nsp
R719				
∫		nsp	330 Ω 1/5W J	nsp
R723				
R725				
∫		nsp	10k Ω 1/5W J	nsp
R729				
R730		nsp	1.8k Ω 1/5W J	nsp
R731		nsp	3.9k Ω 1/5W J	nsp
R732		nsp	10k Ω 1/5W J	nsp
R733		nsp	10 Ω 1/5W J	nsp
R734		nsp	10 Ω 1/5W J	nsp
R736				
∫		nsp	10k Ω 1/5W J	nsp
R739				
R741		nsp	22k Ω 1/5W J	nsp
R742		nsp	47k Ω 1/4W J	nsp
R743		nsp	47k Ω 1/5W J	nsp
R744		nsp	2.7k Ω 1/5W J	nsp
R745		nsp	2.7k Ω 1/5W J	nsp
R746		nsp	1k Ω 1/5W J	nsp
R747		nsp	10 Ω 1/5W J	nsp
R748		nsp	1k Ω 1/5W J	nsp
R749		nsp	1.5k Ω 1/5W J	nsp
R750		nsp	1k Ω 1/5W J	nsp
R751		nsp	1.5k Ω 1/5W J	nsp
R752		nsp	1.8k Ω 1/5W J	nsp
R753		nsp	1.5k Ω 1/5W J	nsp
R754		nsp	1.8k Ω 1/5W J	nsp
R755		nsp	2.7k Ω 1/5W J	nsp
R756		nsp	1.8k Ω 1/5W J	nsp
R757		nsp	2.7k Ω 1/5W J	nsp
R758		nsp	3.3k Ω 1/5W J	nsp
R759		nsp	2.7k Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R760		nsp	3.3k Ω 1/5W J	nsp
R761		nsp	5.6k Ω 1/5W J	nsp
R762		nsp	3.3k Ω 1/5W J	nsp
R763		nsp	5.6k Ω 1/5W J	nsp
R764		nsp	7.5k Ω 1/5W J	nsp
R765		nsp	5.6k Ω 1/5W J	nsp
R766		nsp	7.5k Ω 1/5W J	nsp
R767		nsp	47k Ω 1/5W J	nsp
R768		nsp	47k Ω 1/5W J	nsp
R769		nsp	100k Ω 1/5W J	nsp
R770		nsp	10k Ω 1/5W J	nsp
R771		nsp	10k Ω 1/5W J	nsp
R772		nsp	47k Ω 1/5W J	nsp
R773		nsp	1k Ω 1/5W J	nsp
R775				
∫		nsp	10k Ω 1/5W J	nsp
R778				
R779		nsp	120 Ω 1/4W J	nsp
R780		nsp	120 Ω 1/4W J	nsp
R801		nsp	220k Ω 1/5W J	nsp
R802		nsp	220k Ω 1/5W J	nsp
R805		nsp	22k Ω 1/5W J	nsp
R806		nsp	22k Ω 1/5W J	nsp
R807		nsp	3.9k Ω 1/5W J	nsp
R808		nsp	3.9k Ω 1/5W J	nsp
R809		nsp	2.2k Ω 1/5W J	nsp
R810		nsp	2.2k Ω 1/5W J	nsp
R811		nsp	560 Ω 1/4W J	nsp
R812		nsp	560 Ω 1/5W J	nsp
R813		nsp	1M Ω 1/5W J	nsp
R814		nsp	1M Ω 1/5W J	nsp
R815		nsp	56k Ω 1/5W J	nsp
R816		nsp	56k Ω 1/5W J	nsp
R819		nsp	120 Ω 1/4W J	nsp
R820		nsp	120 Ω 1/4W J	nsp
R827		nsp	2.7k Ω 1/5W J	nsp
R828		nsp	2.7k Ω 1/5W J	nsp
R829		nsp	1k Ω 1/5W J	nsp
R831		nsp	470 Ω 1/5W J	nsp
R832		nsp	470 Ω 1/5W J	nsp
R833		nsp	82 Ω 1/5W J	nsp
R834		nsp	82 Ω 1/5W J	nsp
R835		nsp	82 Ω 1/5W J	nsp
R836		nsp	470 Ω 1/5W J	nsp
R837		nsp	470 Ω 1/5W J	nsp
R839		nsp	2.2k Ω 1/5W J	nsp
R840		nsp	2.2k Ω 1/5W J	nsp
R841		nsp	100k Ω 1/5W J	nsp
R842		nsp	100k Ω 1/5W J	nsp
R843		nsp	47 Ω 1/5W J	nsp
R844		nsp	47 Ω 1/5W J	nsp
R845				
∫		nsp	470 Ω 1/5W J	nsp
R849				
R850		nsp	47 Ω 1/5W J	nsp
R851		nsp	47 Ω 1/4W J	nsp
R852		nsp	47 Ω 1/4W J	nsp
R853		nsp	47 Ω 1/5W J	nsp
VR81		9965 000 01297	VOLUME RK14128030214Y	*RM00O400R
VR82		9965 000 01298	VOLUME RK14128030214C	*RM00O410R
VR83		9965 000 01298	VOLUME RK14128030214C	*RM00O410R
			MISCELLANEOUS	
BN27		nsp	CONNECTOR MOLEX35237-0810	nsp
BN72		nsp	WIRE	nsp
BN74		nsp	WIRE	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
BN81		nsp	SHIELD WIRE PITCH 2.5MM	nsp
BN82		nsp	SHIELD WIRE PITCH 2.0MM	nsp
BN83		nsp	WIRE	nsp
CN71		nsp	WAFER 52045-2945	nsp
CN91	/K1/N1	nsp	WAFER 2PIN	nsp
FIP1		9965 000 02016	FLD HNA-10MS15	*HQ300400R
JK26				
⟆		9965 000 02018	JACK S-VIDEO (H)	*YT001850R
JK30			TCS7927-14-401	
JK81		9965 000 02019	JACK VCR (S/W) JK029-051(Y)	*YT001920R
JK82		9965 000 02020	JACK VCR (S/W) JK029-052(W)	*YT001910R
JK83		9965 000 02021	JACK VCR (S/W) JK029-053(R)	*YT001900R
JK84		4822 265 11649	JACK HEAD PHONE	*YT001870R
			HTJ064-11DG	
JK85		4822 267 10941	JACK S-VIDEO (V)	*YT001860R
			TCS7648-01-201	
JW71		nsp	WIRE	nsp
L281		nsp	COIL 100μH K	nsp
L701		nsp	COIL 10μH K	nsp
SW81	/K1/N1	4822 276 14105	SW PUSH (MOMS)	*SP000850R
SW82		4822 276 14103	SW PUSH SPUL19XIM071	*SP000860R
S701	/N1	9965 000 01263	SW TACT	*SP000890R
S702		9965 000 01263	SW TACT	*SP000890R
S703		9965 000 01263	SW TACT	*SP000890R
S704	/N1	9965 000 01263	SW TACT	*SP000890R
S705		9965 000 01263	SW TACT	*SP000890R
S706		9965 000 01263	SW TACT	*SP000890R
S707	/N1	9965 000 01263	SW TACT	*SP000890R
S708				
⟆		9965 000 01263	SW TACT	*SP000890R
S722				
S723	/U1	9965 000 01263	SW TACT	*SP000890R
VR71		9965 000 01301	VR ENCODOR	*SR000120R
			EC16B1220408A	
VR84		9965 000 02022	VR ENCODER	*SR000130R
			EC16B243040HB	
X701		4822 242 10855	CRYSTAL 8MHz 16pF	*JX000410R
			DIGITAL (CUP11253)	
			CIRCUIT BOARD	
			CAPACITORS	
C111				
⟆	/N1/K1	nsp	CER. 150pF 50V K	nsp
C118				
C119				
⟆		nsp	ELECT 100μF 35V	nsp
C122				
C123		nsp	CER. 0.01μF 50V Z	nsp
C124		nsp	CER. 0.01μF 50V Z	nsp
C125		nsp	CER. 470pF 50V K	nsp
C126		nsp	CER. 470pF 50V K	nsp
C127		nsp	CER. 470pF 50V K	nsp
C141		nsp	ELECT 100μF 35V	nsp
C142		nsp	ELECT 100μF 35V	nsp
C143		nsp	CER. 470pF 50V K	nsp
C144		nsp	CER. 470pF 50V K	nsp
C145		nsp	CER. 470pF 50V K	nsp
C148		nsp	ELECT 10μF 50V	nsp
C149		nsp	CER. 0.01μF 50V Z	nsp
C151		nsp	ELECT 10μF 50V	nsp
C152		nsp	ELECT 10μF 50V	nsp
C153		nsp	CER. 100pF 50V K	nsp
C154		nsp	CER. 100pF 50V K	nsp
C155		nsp	ELECT 10μF 16V	nsp
C156		nsp	ELECT 10μF 16V	nsp
C157		nsp	CER. 0.01μF 50V Z	nsp
C158		nsp	CER. 0.01μF 50V Z	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C161		nsp	ELECT 10μF 50V	nsp
C162		nsp	ELECT 10μF 50V	nsp
C163				
⟆		nsp	CER. 22pF 50V J	nsp
C166				
C167		nsp	ELECT 10μF 50V	nsp
C168		nsp	ELECT 10μF 50V	nsp
C169		nsp	CER. 0.01μF 50V Z	nsp
C170		nsp	CER. 0.01μF 50V Z	nsp
C171		nsp	ELECT 10μF 50V	nsp
C172		nsp	ELECT 10μF 50V	nsp
C173				
⟆		nsp	CER. 22pF 50V J	nsp
C176				
C177		nsp	ELECT 10μF 50V	nsp
C178		nsp	ELECT 10μF 50V	nsp
C179		nsp	CER. 0.01μF 50V Z	nsp
C180		nsp	CER. 0.01μF 50V Z	nsp
C185		nsp	CER. 0.01μF 50V Z	nsp
C197				
⟆	/N1/K1	nsp	CER. 150pF 50V K	nsp
C202				
C301		nsp	SEMI 0.1μF 50V Z	nsp
C302		nsp	CER. 18pF 50V J	nsp
C303		nsp	ELECT 100μF 16V	nsp
C306		nsp	CER. 22pF 50V J	nsp
C307		nsp	CER. 22pF 50V J	nsp
C308		nsp	ELECT 10μF 16V	nsp
C309		nsp	ELECT 10μF 16V	nsp
C310		nsp	SEMI 0.1μF 50V Z	nsp
C311		nsp	SEMI 0.1μF 50V Z	nsp
C312		nsp	CER. 0.1μF 50V Z	nsp
C313		nsp	CER. 0.1μF 50V Z	nsp
C314		nsp	CER. 0.1μF 50V Z	nsp
C315		nsp	ELECT 100μF 16V	nsp
C316		nsp	CER. 0.1μF 50V Z	nsp
C317		nsp	ELECT 1μF 50V	nsp
C318		nsp	FILM 0.047μF 50V J	nsp
C319		nsp	FILM 1000pF 50V J	nsp
C320		nsp	ELECT 1000μF 6.3V	nsp
C321		nsp	CER. 0.1μF 50V Z	nsp
C322		nsp	CER. 0.1μF 50V Z	nsp
C323		nsp	CER. 0.1μF 50V Z	nsp
C325		nsp	ELECT 1000μF 6.3V	nsp
C326				
⟆		nsp	CER. 0.1μF 50V Z	nsp
C331				
C332		nsp	CER. 470pF 50V K	nsp
C333		nsp	CER. 33pF 50V J	nsp
C334		nsp	CER. 33pF 50V J	nsp
C335		nsp	CER. 0.01μF 50V Z	nsp
C336		nsp	CER. 0.01μF 50V Z	nsp
C337		nsp	CER. 100pF 50V K	nsp
C338		nsp	CER. 100pF 50V K	nsp
C339		nsp	ELECT 10μF 50V	nsp
C340		nsp	ELECT 10μF 50V	nsp
C343		nsp	ELECT 10μF 50V	nsp
C344		nsp	ELECT 10μF 50V	nsp
C345		nsp	FILM 0.0047μF 50V J	nsp
C346		nsp	FILM 0.0047μF 50V J	nsp
C347		nsp	CER. 220pF 50V K	nsp
C348		nsp	CER. 220pF 50V K	nsp
C349		nsp	FILM 0.012μF 50V J	nsp
C350		nsp	FILM 0.012μF 50V J	nsp
C352		nsp	ELECT 1000μF 6.3V	nsp
C357		nsp	CER. 0.01μF 50V Z	nsp
C358		nsp	CER. 0.01μF 50V Z	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C359		nsp	ELECT 10µF 50V	nsp
C360		nsp	ELECT 10µF 50V	nsp
C361		nsp	FILM 0.0047µF 50V J	nsp
C362		nsp	FILM 0.0047µF 50V J	nsp
C363		nsp	CER. 68pF 50V J	nsp
C364		nsp	CER. 68pF 50V J	nsp
C365		nsp	FILM 0.0027µF 50V J	nsp
C366		nsp	FILM 0.0027µF 50V J	nsp
C367		nsp	CER. 220pF 50V K	nsp
C368		nsp	CER. 220pF 50V K	nsp
C369		nsp	ELECT 10µF 50V	nsp
C370		nsp	ELECT 10µF 50V	nsp
C371		nsp	FILM 0.012µF 50V J	nsp
C372		nsp	FILM 0.012µF 50V J	nsp
C373		nsp	CER. 0.01µF 50V Z	nsp
C374		nsp	CER. 0.01µF 50V Z	nsp
C375		nsp	ELECT 10µF 50V	nsp
C376		nsp	ELECT 47µF 25V	nsp
C377		nsp	FILM 0.0047µF 50V J	nsp
C379		nsp	CER. 68pF 50V J	nsp
C380		nsp	FILM 0.012µF 50V J	nsp
C381		nsp	FILM 0.0027µF 50V J	nsp
C383		nsp	CER. 220pF 50V K	nsp
C384		nsp	FILM 0.0047µF 50V J	nsp
C385		nsp	ELECT 10µF 50V	nsp
C386		nsp	CER. 150pF 50V K	nsp
C387		nsp	FILM 0.012µF 50V J	nsp
C388		nsp	FILM 0.012µF 50V J	nsp
C389				
∫		nsp	ELECT 10µF 50V	nsp
C392				
C393		nsp	CER. 0.01µF 50V Z	nsp
C394		nsp	CER. 0.01µF 50V Z	nsp
C395		nsp	CER. 100pF 50V K	nsp
C396		nsp	CER. 100pF 50V K	nsp
C399		nsp	CER. 100pF 50V K	nsp
C400		nsp	CER. 100pF 50V K	nsp
C401		nsp	CER. 0.01µF 50V Z	nsp
C410		nsp	ELECT 10µF 50V	nsp
C411		nsp	CER. 0.01µF 50V Z	nsp
C412		nsp	CER. 0.01µF 50V Z	nsp
C413		nsp	CER. 100pF 50V K	nsp
C414		nsp	CER. 100pF 50V K	nsp
C417		nsp	CER. 0.01µF 50V Z	nsp
C418		nsp	CER. 0.01µF 50V Z	nsp
C419		nsp	CER. 470pF 50V K	nsp
C420		nsp	CER. 470pF 50V K	nsp
C421		nsp	CER. 470pF 50V K	nsp
C422				
∫	/N1/K1	nsp	CER. 150pF 50V K	nsp
C427				
C429		nsp	ELECT 10µF 50V	nsp
C430		nsp	ELECT 10µF 50V	nsp
C433		nsp	CER. 18pF 50V J	nsp
C434		nsp	CER. 18pF 50V J	nsp
C435		nsp	CER. 100pF 50V K	nsp
C436		nsp	CER. 100pF 50V K	nsp
C437		nsp	CER. 1000pF 50V J	nsp
C438				
∫		nsp	CER. 0.01µF 50V Z	nsp
C441				
C442		nsp	CER. 0.1µF 50V Z	nsp
C443		nsp	CER. 100pF 50V K	nsp
C444		nsp	CER. 100pF 50V K	nsp
C445		nsp	CER. 33pF 50V J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			INTEGRATED CIRCUITS	
IC11		9965 000 00195	IC TC9164AF	*HC105030R
IC13		9965 000 02023	IC TC9482F	*HC105180R
IC15		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC16		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC17		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC31		9965 000 01321	IC YSS912-F	HC10014640
IC32		4822 209 17157	IC CS4226	*HC104990R
IC33		9965 000 02024	IC KM681002CT-15 SRAM	*HC105190R
IC34		9965 000 00197	IC TC9162AF	*HC105010R
IC35		9965 000 00199	IC TC74HCU04AFN	*HC105040R
IC36				
∫		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC39				
IC41		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC42		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC43		9965 000 02025	IC NJU7202L33-T1	*HC700220R
			TRANSISTORS	
Q147		4822 130 11609	KSC2785Y	*HT300590R
Q148		4822 130 61227	DTA114ES	BA10007210
Q149		4822 130 60588	DTC114ES	BA20010210
Q185				
∫		5322 130 60898	KTC2878B	*HT300600R
Q190				
Q301				
∫		5322 130 60898	KTC2878B	*HT300600R
Q306				
			RESISTORS	
R101				
∫		nsp	470 Ω 1/5W J	nsp
R108				
R111				
∫		nsp	100k Ω 1/5W J	nsp
R118				
R121		nsp	120 Ω 1/5W J	nsp
R122		nsp	120 Ω 1/5W J	nsp
R123		nsp	470 Ω 1/5W J	nsp
R124		nsp	470 Ω 1/5W J	nsp
R125		nsp	470 Ω 1/5W J	nsp
R137		nsp	2.2k Ω 1/5W J	nsp
R138		nsp	2.2k Ω 1/5W J	nsp
R141		nsp	120 Ω 1/5W J	nsp
R142		nsp	120 Ω 1/5W J	nsp
R143		nsp	470 Ω 1/5W J	nsp
R144		nsp	470 Ω 1/5W J	nsp
R145		nsp	470 Ω 1/5W J	nsp
R146		nsp	27k Ω 1/5W J	nsp
R147		nsp	10k Ω 1/5W J	nsp
R148		nsp	100k Ω 1/5W J	nsp
R149		nsp	220k Ω 1/5W J	nsp
R150		nsp	82k Ω 1/5W J	nsp
R151		nsp	33k Ω 1/5W J	nsp
R152		nsp	33k Ω 1/5W J	nsp
R153		nsp	470 Ω 1/5W J	nsp
R154		nsp	470 Ω 1/5W J	nsp
R155		nsp	47k Ω 1/5W J	nsp
R156		nsp	47k Ω 1/5W J	nsp
R157		nsp	120 Ω 1/5W J	nsp
R158		nsp	120 Ω 1/5W J	nsp
R161		nsp	82k Ω 1/5W J	nsp
R162		nsp	82k Ω 1/5W J	nsp
R163		nsp	10k Ω 1/5W J	nsp
R164		nsp	5.1k Ω 1/5W J	nsp
R165		nsp	47k Ω 1/5W J	nsp
R166		nsp	47k Ω 1/5W J	nsp
R167		nsp	470 Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R168		nsp	470 Ω 1/5W J	nsp
R169		nsp	120 Ω 1/5W J	nsp
R170		nsp	120 Ω 1/5W J	nsp
R171		nsp	82k Ω 1/5W J	nsp
R172		nsp	82k Ω 1/5W J	nsp
R173		nsp	10k Ω 1/5W J	nsp
R174		nsp	10k Ω 1/5W J	nsp
R175		nsp	47k Ω 1/5W J	nsp
R176		nsp	47k Ω 1/5W J	nsp
R177		nsp	470 Ω 1/5W J	nsp
R178		nsp	470 Ω 1/5W J	nsp
R179		nsp	120 Ω 1/5W J	nsp
R180		nsp	120 Ω 1/5W J	nsp
R181				
∫		nsp	47k Ω 1/5W J	nsp
R184				
R185				
∫		nsp	4.7k Ω 1/5W J	nsp
R190				
R191				
∫		nsp	470 Ω 1/5W J	nsp
R196				
R197				
∫		nsp	100k Ω 1/5W J	nsp
R202				
R301		nsp	4.7k Ω 1/5W J	nsp
R302				
∫		nsp	82 Ω 1/5W J	nsp
R305				
R306		nsp	4.7k Ω 1/5W J	nsp
R307		nsp	10k Ω 1/5W J	nsp
R308		nsp	4.7k Ω 1/5W J	nsp
R309		nsp	10k Ω 1/5W J	nsp
R310		nsp	4.7k Ω 1/5W J	nsp
R311		nsp	10k Ω 1/5W J	nsp
R313		nsp	47k Ω 1/5W J	nsp
R314		nsp	47k Ω 1/5W J	nsp
R315		nsp	10k Ω 1/5W J	nsp
R316		nsp	47k Ω 1/5W J	nsp
R317		nsp	33 Ω 1/5W J	nsp
R318		nsp	1M Ω 1/5W J	nsp
R319		nsp	10k Ω 1/5W J	nsp
R322		nsp	120 Ω 1/5W J	nsp
R323		nsp	120 Ω 1/5W J	nsp
R324		nsp	470 Ω 1/5W J	nsp
R325		nsp	470 Ω 1/5W J	nsp
R326		nsp	470 Ω 1/5W J	nsp
R327		nsp	120 Ω 1/5W J	nsp
R328		nsp	120 Ω 1/5W J	nsp
R329		nsp	4.7k Ω 1/5W J	nsp
R330		nsp	4.7k Ω 1/5W J	nsp
R333		nsp	120 Ω 1/5W J	nsp
R334		nsp	120 Ω 1/5W J	nsp
R335		nsp	47k Ω 1/5W J	nsp
R336		nsp	47k Ω 1/5W J	nsp
R337		nsp	9.1k Ω 1/5W J	nsp
R338		nsp	9.1k Ω 1/5W J	nsp
R339		nsp	1.5k Ω 1/5W J	nsp
R340		nsp	1.5k Ω 1/5W J	nsp
R341		nsp	27k Ω 1/5W J	nsp
R342		nsp	27k Ω 1/5W J	nsp
R343		nsp	1.5k Ω 1/5W J	nsp
R344		nsp	1.5k Ω 1/5W J	nsp
R345		nsp	47k Ω 1/5W J	nsp
R346		nsp	47k Ω 1/5W J	nsp
R347		nsp	180 Ω 1/5W J	nsp
R348		nsp	180 Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R349		nsp	120 Ω 1/5W J	nsp
R350		nsp	120 Ω 1/5W J	nsp
R351		nsp	47k Ω 1/5W J	nsp
R352		nsp	47k Ω 1/5W J	nsp
R353		nsp	1k Ω 1/5W J	nsp
R354		nsp	1k Ω 1/5W J	nsp
R355		nsp	1.2k Ω 1/5W J	nsp
R356		nsp	1.2k Ω 1/5W J	nsp
R357		nsp	9.1k Ω 1/5W J	nsp
R358		nsp	9.1k Ω 1/5W J	nsp
R359		nsp	18k Ω 1/5W J	nsp
R360		nsp	18k Ω 1/5W J	nsp
R361		nsp	47k Ω 1/5W J	nsp
R362		nsp	47k Ω 1/5W J	nsp
R363		nsp	180 Ω 1/5W J	nsp
R364		nsp	180 Ω 1/5W J	nsp
R365		nsp	120 Ω 1/5W J	nsp
R366		nsp	120 Ω 1/5W J	nsp
R367		nsp	47k Ω 1/5W J	nsp
R368		nsp	47k Ω 1/5W J	nsp
R369		nsp	1k Ω 1/5W J	nsp
R370		nsp	1.5k Ω 1/5W J	nsp
R371		nsp	1.2k Ω 1/5W J	nsp
R372		nsp	4.7k Ω 1/5W J	nsp
R373		nsp	9.1k Ω 1/5W J	nsp
R374		nsp	1.5k Ω 1/5W J	nsp
R375		nsp	18k Ω 1/5W J	nsp
R376		nsp	12k Ω 1/5W J	nsp
R377		nsp	47k Ω 1/5W J	nsp
R379		nsp	180 Ω 1/5W J	nsp
R380		nsp	180 Ω 1/5W J	nsp
R381		nsp	10k Ω 1/5W J	nsp
R382		nsp	10k Ω 1/5W J	nsp
R383		nsp	27k Ω 1/5W J	nsp
R384		nsp	27k Ω 1/5W J	nsp
R385		nsp	10k Ω 1/5W J	nsp
R386		nsp	10k Ω 1/5W J	nsp
R387		nsp	470 Ω 1/5W J	nsp
R388		nsp	470 Ω 1/5W J	nsp
R389		nsp	47k Ω 1/5W J	nsp
R390		nsp	47k Ω 1/5W J	nsp
R391		nsp	4.7k Ω 1/5W J	nsp
R392		nsp	4.7k Ω 1/5W J	nsp
R395		nsp	1k Ω 1/5W J	nsp
R396		nsp	1k Ω 1/5W J	nsp
R397		nsp	47k Ω 1/5W J	nsp
R398		nsp	47k Ω 1/5W J	nsp
R399		nsp	4.7k Ω 1/5W J	nsp
R400		nsp	4.7k Ω 1/5W J	nsp
R401		nsp	2.2 Ω 1/5W J	nsp
R402		nsp	120 Ω 1/5W J	nsp
R403		nsp	10k Ω 1/5W J	nsp
R404		nsp	10k Ω 1/5W J	nsp
R405		nsp	82 Ω 1/5W J	nsp
R406		nsp	82 Ω 1/5W J	nsp
R407		nsp	82 Ω 1/5W J	nsp
R409		nsp	1k Ω 1/5W J	nsp
R410		nsp	1k Ω 1/5W J	nsp
R411		nsp	4.7k Ω 1/5W J	nsp
R412		nsp	4.7k Ω 1/5W J	nsp
R413		nsp	47k Ω 1/5W J	nsp
R414		nsp	47k Ω 1/5W J	nsp
R415		nsp	120 Ω 1/5W J	nsp
R416		nsp	120 Ω 1/5W J	nsp
R419		nsp	82k Ω 1/5W J	nsp
R424		nsp	4.7 Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R425				
⟆		nsp	1k Ω 1/5W J	nsp
R430				
R431				
⟆		nsp	47k Ω 1/5W J	nsp
R436				
R437		nsp	3.9k Ω 1/5W J	nsp
R438		nsp	3.9k Ω 1/5W J	nsp
R441		nsp	4.7 Ω 1/5W J	nsp
R443		nsp	4.7k Ω 1/5W J	nsp
R444		nsp	470 Ω 1/5W J	nsp
R445		nsp	470 Ω 1/5W J	nsp
R446		nsp	120 Ω 1/5W J	nsp
R447				
⟆		nsp	470 Ω 1/5W J	nsp
R450				
R451		nsp	120 Ω 1/5W J	nsp
R452		nsp	470 Ω 1/5W J	nsp
R453		nsp	470 Ω 1/5W J	nsp
R454		nsp	82 Ω 1/5W J	nsp
R455		nsp	82 Ω 1/5W J	nsp
R456		nsp	82 Ω 1/5W J	nsp
R457		nsp	470 Ω 1/5W J	nsp
R458		nsp	470 Ω 1/5W J	nsp
			MISCELLANEOUS	
BN12		nsp	WAFER 35237 (15PIN)	nsp
BN13		nsp	WAFER 35237 (15PIN)	nsp
BN31		nsp	WAFER 35237 (15PIN)	nsp
BN32		nsp	WAFER 35237 (15PIN)	nsp
BN51		nsp	WIRE	nsp
CN81		nsp	WAFER	nsp
JK11		9965 000 00206	JACK RCA	*YT001770R
JK12		9965 000 00206	JACK RCA	*YT001770R
JK13			JACK RCA	*YT001880R
JK31		9965 000 00220	MODULE OPTICAL TORX178A	YJ15000160
JK32			JACK RCA	*YT001930R
JK33		9965 000 00205	JACK RCA	*YT001760R
JK34			JACK RCA	*YT001880R
L301		nsp	COIL 68μH K	nsp
L303		nsp	COIL 10μH K	nsp
L304		nsp	COIL FERRITE	nsp
X301		9965 000 02026	CRYSTAL 12.288MHz 32pF	*JX000630R
			TUNER (CUP11254)	
			CIRCUIT BOARD	
			CAPACITORS	
CT01		4822 125 11116	TRIM	*CT000110R
C011	/K1/N1	nsp	CER. 15pF 50V J	nsp
C013		nsp	CER. 0.01μF 50V Z	nsp
C014		nsp	CER. 0.001μF 50V K	nsp
C015		nsp	CER. 15pF 50V J	nsp
C016		nsp	CER. 0.01μF 50V Z	nsp
C017		nsp	CER. 10pF 50V J	nsp
C018		nsp	CER. 0.1μF 50V Z	nsp
C019		nsp	CER. 0.1μF 50V Z	nsp
C020		nsp	ELECT 1μF 50V	nsp
C021		nsp	ELECT 220μF 16V	nsp
C022		nsp	CER. 0.01μF 50V Z	nsp
C023		nsp	CER. 100pF 50V K	nsp
C024		nsp	CER. 100pF 50V K	nsp
C025		nsp	CER. 470pF 50V K	nsp
C026	/N1	nsp	CER. 100pF 50V K	nsp
C027	/N1/K1	nsp	CER. 100pF 50V K	nsp
C028	/N1	nsp	CER. 390pF 50V K	nsp
C031		nsp	CER. 0.1μF 50V Z	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C033		nsp	CER. 15pF 50V J	nsp
C034		nsp	CER. 470pF 50V K	nsp
C036		nsp	CER. 0.001μF 50V K	nsp
C037		nsp	ELECT 100μF 16V	nsp
C038		nsp	CER. 0.1μF 50V Z	nsp
C039		nsp	CER. 0.01μF 50V Z	nsp
C040		nsp	CER. 8.2pF 50V K	nsp
C041		nsp	CER. 47μF 50V	nsp
C042		nsp	ELECT 1μF 50V	nsp
C043		nsp	ELECT 4.7μF 16V	nsp
C045		nsp	ELECT 1μF 50V	nsp
C046		nsp	ELECT 1μF 50V	nsp
C047	/N1/K1	nsp	CER. 0.0047μF 50V M	nsp
C047	/U1	nsp	CER. 0.0056μF 16V M	nsp
C048		nsp	FILM 0.0015μF 50V J	nsp
C050	/N1/K1	nsp	FILM 0.027μF 50V J	nsp
C050	/U1	nsp	FILM 0.047μF 50V J	nsp
C051		nsp	ELECT 4.7μF 50V	nsp
C054		nsp	ELECT 10μF 16V	nsp
C055		nsp	ELECT 220μF 16V	nsp
C056		nsp	CER. 0.1μF 50V Z	nsp
C057	/N1/K1	nsp	CER. 560pF 50V K	nsp
C057	/U1	nsp	CER. 0.001μF 50V K	nsp
C058	/N1/K1	nsp	CER. 560pF 50V K	nsp
C058	/U1	nsp	CER. 0.001μF 50V K	nsp
C059		nsp	ELECT 0.47μF 50V	nsp
C060		nsp	ELECT 0.47μF 50V	nsp
C061		nsp	ELECT 1μF 50V	nsp
C062		nsp	CER. 470pF 50V K	nsp
C063		nsp	ELECT 1μF 50V	nsp
C065				
⟆		nsp	ELECT 2.2μF 50V	nsp
C068				
C069				
⟆		nsp	ELECT 10μF 50V	nsp
C072				
C073		nsp	ELECT 100μF 16V	nsp
C074		nsp	ELECT 100μF 16V	nsp
C076		nsp	ELECT 470μF 10V	nsp
C077		nsp	CER. 0.01μF 50V Z	nsp
C078		nsp	CER. 33pF 50V J	nsp
C079		nsp	CER. 33pF 50V J	nsp
C080		nsp	CER. 0.022μF 50V Z	nsp
C081		nsp	ELECT 4.7μF 50V	nsp
C082		nsp	CER. 0.022μF 50V Z	nsp
C083	/N1	nsp	ELECT 100μF 16V	nsp
C084	/N1	nsp	CER. 0.01μF 50V Z	nsp
C085	/N1	nsp	ELECT 10μF 50V	nsp
C086	/N1	nsp	CER. 100pF 50V K	nsp
C087	/N1	nsp	CER. 0.022μF 50V Z	nsp
C088	/N1	nsp	CER. 0.022μF 50V Z	nsp
C089	/N1	nsp	CER. 39pF 50V J	nsp
C090	/N1	nsp	CER. 33pF 50V J	nsp
C091		nsp	ELECT 100μF 16V	nsp
C092		nsp	ELECT 220μF 16V	nsp
C093		nsp	CER. 0.022μF 50V Z	nsp
			DIODES	
D011		4822 130 11681	DIODE VARICAP SVC342-L-AA	*HD400160R
D012		9965 000 01250	DIODE 1SS131M	*HD201290R
D013		9965 000 01250	DIODE 1SS131M	*HD201290R
D014		9965 000 01250	DIODE 1SS131M	*HD201290R
D015	/N1	4822 130 30621	DIODE 1N4148	QP13O30621
D016		9965 000 02027	ZENER 5.6V 1/2W	*HD301750R
D017		9965 000 01250	DIODE 1SS131M	*HD201290R

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			INTEGRATED CIRCUITS	
IC01		4822 209 71785	IC LA1266	HC10222030
IC02		4822 209 70261	IC LA3410	HC10198030
IC03		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC04		4822 209 15778	IC LC72131M	*HC104820R
IC05	/N1	4822 209 17453	IC BFU1923F	*HC104810R
			TRANSISTORS	
Q011		4822 130 63385	KTC3192O	*HT300480R
Q012		4822 130 63385	KTC3192O	*HT300480R
Q013		4822 130 62787	DTA114YS	*BA000190R
Q014		4822 130 62787	DTA114YS	*BA000190R
Q015		4822 130 63659	DTC143TS	*BA000700R
Q016		4822 130 63659	DTC143TS	*BA000700R
Q017		4822 130 61187	DTA114TS	BA10009210
			RESISTORS	
R011		nsp	390 Ω 1/5W J	nsp
R012		nsp	120 Ω 1/5W J	nsp
R013		nsp	15k Ω 1/5W J	nsp
R014		nsp	5.6k Ω 1/5W J	nsp
R015		nsp	1.2k Ω 1/5W J	nsp
R016		nsp	820k Ω 1/5W J	nsp
R017		nsp	560 Ω 1/5W J	nsp
R018		nsp	470k Ω 1/5W J	nsp
R019		nsp	270 Ω 1/5W J	nsp
R020		nsp	1.8k Ω 1/5W J	nsp
R021		nsp	15k Ω 1/5W J	nsp
R022		nsp	2.7k Ω 1/5W J	nsp
R023		nsp	15k Ω 1/5W J	nsp
R024		nsp	2.7k Ω 1/5W J	nsp
R025	/U1	nsp	120 Ω 1/5W J	nsp
R025	/N1/K1	nsp	1k Ω 1/5W J	nsp
R026		nsp	1k Ω 1/5W J	nsp
R027		nsp	100k Ω 1/5W J	nsp
R028		nsp	470 Ω 1/4W J	nsp
R029		nsp	120 Ω 1/5W J	nsp
R030		nsp	100k Ω 1/5W J	nsp
R031	/N1/K1	nsp	22k Ω 1/5W J	nsp
R031	/U1	nsp	33k Ω 1/5W J	nsp
R032		nsp	82 Ω 1/5W J	nsp
R033		nsp	22k Ω 1/5W J	nsp
R034		nsp	100k Ω 1/5W J	nsp
R035		nsp	10k Ω 1/4W J	nsp
R036	/N1	nsp	5.6k Ω 1/5W J	nsp
R036	/U1	nsp	12k Ω 1/5W J	nsp
R036	/K1	nsp	3.3k Ω 1/5W J	nsp
R037		nsp	82 Ω 1/5W J	nsp
R038	/N1	nsp	39k Ω 1/5W J	nsp
R038	/N1/K1	nsp	5.6k Ω 1/5W J	nsp
R039		nsp	1k Ω 1/5W J	nsp
R041		nsp	6.8k Ω 1/5W J	nsp
R053				
⟆		nsp	3.3k Ω 1/5W J	nsp
R056				
R057		nsp	1.2k Ω 1/5W J	nsp
R058		nsp	1.2k Ω 1/5W J	nsp
R059		nsp	1k Ω 1/5W J	nsp
R060		nsp	1k Ω 1/5W J	nsp
R061		nsp	120 Ω 1/5W J	nsp
R062		nsp	120 Ω 1/5W J	nsp
R063		nsp	100k Ω 1/5W J	nsp
R064		nsp	100k Ω 1/5W J	nsp
R065		nsp	10k Ω 1/5W J	nsp
R066		nsp	10k Ω 1/5W J	nsp
R067		nsp	270 Ω 1/4W J	nsp
R069	/N1/K1	nsp	3.3k Ω 1/5W J	nsp
R069	/U1	nsp	2.7k Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R070	/N1/K1	nsp	3.3k Ω 1/5W J	nsp
R070	/U1	nsp	2.7k Ω 1/5W J	nsp
R071		nsp	47k Ω 1/5W J	nsp
R072		nsp	5.6k Ω 1/5W J	nsp
R073	/N1/K1	nsp	91k Ω 1/5W J	nsp
R073	/U1	nsp	75k Ω 1/5W J	nsp
R074	/N1/K1	nsp	91k Ω 1/5W J	nsp
R074	/U1	nsp	75k Ω 1/5W J	nsp
R075		nsp	150k Ω 1/5W J	nsp
R076		nsp	150k Ω 1/5W J	nsp
R077		nsp	10k Ω 1/5W J	nsp
R078		nsp	10k Ω 1/5W J	nsp
R080				
⟆		nsp	3.3k Ω 1/5W J	nsp
R083				
R084		nsp	1k Ω 1/5W J	nsp
R085		nsp	10k Ω 1/5W J	nsp
R086		nsp	560 Ω 1/5W J	nsp
R087		nsp	5.6k Ω 1/5W J	nsp
R088		nsp	10k Ω 1/5W J	nsp
R089	/N1	nsp	10 Ω 1/4W J	nsp
R090	/N1	nsp	470 Ω 1/5W J	nsp
R093		nsp	3.3k Ω 1/5W J	nsp
R095		nsp	390 Ω 1/4W J	nsp
R097		nsp	1 Ω 1/5W J	nsp
VR01		9965 000 02028	TRIM 47k Ω	*RA00O960R
VR02		9965 000 02029	TRIM 22 k Ω	*RA00O950R
VR04		9965 000 02028	TRIM 47k Ω	*RA00O960R
			MISCELLANEOUS	
CF01		4822 242 11039	FILTER CERAMIC SFE10.7MS8H-A-T	*FF10O230R
CF02		4822 242 11039	FILTER CERAMIC SFE10.7MS8H-A-T	*FF10O230R
CF03		4822 242 10853	FILTER CERAMIC SFZ450F	FF10045290
CN11		nsp	CONNECTOR MOLEX35237-1310	nsp
FP11		9965 000 01266	TUNER PACK FTA4460H	*AV00O060R
JK01	/N1/K1	4822 265 11601	TREMINAL ANT.	*YT001500R
JK01	/U1		TREMINAL ANT.	*YT001630R
JW01		nsp	WIRE ASSY	nsp
L010		nsp	COIL 10μH 16V	nsp
L012		9965 000 01253	COIL AM ANT2	*TC00O360R
L013		4822 157 11484	COIL AM OSC	*LO00O060R
L015	/N1	4822 157 11873	COIL	*LC107220R
L017		4822 157 11487	COIL MPX	*LS00O060R
L018		4822 157 11487	COIL MPX	*LS00O060R
T011		4822 157 11861	IFT FM	*LA00O110R
T012		4822 157 11489	IFT FM	*LI00O070R
T013		9965 000 01267	IFT AM	*TC00O370R
X011		4822 242 82242	FILTER CERAMIC BFU450C4N	*FF10O190R
X012		4822 242 72333	CRYSTAL 7.2MHz 20pF	JX070O1261
X013	/N1	4822 242 11042	CRYSTAL 4.332MHz 20pF	*JX000540R
X014		4822 242 81117	RESONATOR CSB456F11	FQ045 63010
			POWER (CUP11255) CIRCUIT BOARD CAPACITORS	
C211				
⟆	/N1/K1	nsp	CER. 150pF 50V K	nsp
C218				
C221		nsp	CER. 150pF 50V K	nsp
C223		nsp	CER. 150pF 50V K	nsp
C224		nsp	CER. 150pF 50V K	nsp
C225		nsp	ELECT 100μF 35V	nsp
C226		nsp	ELECT 100μF 35V	nsp
C227		nsp	CER. 0.01μF 50V Z	nsp
C228		nsp	CER. 0.01μF 50V Z	nsp
C229		nsp	CER. 470pF 50V K	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C230		nsp	CER. 470pF 50V K	nsp
C231		nsp	CER. 470pF 50V K	nsp
C232		nsp	ELECT 10µF 16V	nsp
C233		nsp	CER. 0.01µF 50V Z	nsp
C236		nsp	ELECT 10µF 16V	nsp
C237		nsp	ELECT 10µF 16V	nsp
C238		nsp	ELECT 10µF 16V	nsp
C239		nsp	CER. 0.01µF 50V Z	nsp
C241		nsp	ELECT 470µF 10V	nsp
C242		nsp	ELECT 10µF 16V	nsp
C243		nsp	ELECT 10µF 16V	nsp
C244		nsp	ELECT 10µF 16V	nsp
C245		nsp	ELECT 470µF 10V	nsp
C253		nsp	CER. 0.01µF 50V Z	nsp
C254		nsp	CER. 0.01µF 50V Z	nsp
C255		nsp	CER. 0.01µF 50V Z	nsp
C256		nsp	ELECT 470µF 10V	nsp
C257		nsp	CER. 0.01µF 50V Z	nsp
C259		nsp	ELECT 10µF 16V	nsp
C901		nsp	CER. 0.01µF 50V Z	nsp
C902		nsp	ELECT 470µF 25V	nsp
C903		nsp	ELECT 100µF 16V	nsp
C904		nsp	ELECT 100µF 16V	nsp
⚠ C905		nsp	CER. DE7150-610F472M	nsp
C906		nsp	ELECT 100µF 16V	nsp
⚠ C907		nsp	CER. DE7150-610F472M	nsp
C909		nsp	ELECT 330µF 16V	nsp
C911		nsp	FILM 0.047µF 50V J	nsp
C912		nsp	FILM 0.047µF 50V J	nsp
C913		nsp	FILM 0.01µF 50V Z	nsp
C914		nsp	FILM 0.01µF 50V Z	nsp
C921		nsp	FILM 0.047µF 50V J	nsp
C922		nsp	FILM 0.047µF 50V J	nsp
C923		nsp	FILM 0.047µF 50V J	nsp
			DIODES	
D901		4822 130 31878	DIODE 1N4003	HD200010AR
D902		4822 130 31878	DIODE 1N4003	HD200010AR
D905		9965 000 02030	ZENER 12V 1/2W	*HD301730R
D906		9965 000 01304	ZENER 6.2V 1/2W	*HD301710R
D907		9965 000 01250	DIODE 1SS131M	*HD201290R
D909		4822 130 31878	DIODE 1N4003	HD200010AR
			INTEGRATED CIRCUITS	
IC21		9965 000 00196	IC TC9163AF	*HC105020R
IC25		4822 209 17452	IC BA7626	HC10190210
			TRANSISTORS	
Q251		4822 130 11624	KSA733CY	*HT100420R
Q252		4822 130 11624	KSA733CY	*HT100420R
Q253		4822 130 60588	DTC114ES	BA20010210
Q254		4822 130 60588	DTC114ES	BA20010210
Q255		4822 130 60588	DTC114ES	BA20010210
Q901		4822 130 11617	KSC2316Y	*HT300580R
Q902		4822 130 11617	KSC2316Y	*HT300580R
Q903		4822 130 11609	KSC2785Y	*HT300590R
			RESISTORS	
R201				
∫		nsp	470 Ω 1/5W J	nsp
R208				
R211				
∫		nsp	100k Ω 1/5W J	nsp
R218				
R221		nsp	100 Ω 1/5W J	nsp
R223		nsp	100k Ω 1/5W J	nsp
R224		nsp	100k Ω 1/5W J	nsp
R225		nsp	120 Ω 1/5W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R226		nsp	120 Ω 1/5W J	nsp
R229		nsp	470 Ω 1/5W J	nsp
R230		nsp	470 Ω 1/5W J	nsp
R231		nsp	470 Ω 1/5W J	nsp
R236		nsp	10 Ω 1/5W J	nsp
R237		nsp	10 Ω 1/5W J	nsp
R238		nsp	10 Ω 1/5W J	nsp
R241				
∫		nsp	75 Ω 1/5W J	nsp
R245				
R247		nsp	10k Ω 1/5W J	nsp
R248		nsp	10k Ω 1/5W J	nsp
R249				
∫		nsp	100 Ω 1/5W J	nsp
R252				
R253		nsp	10k Ω 1/5W J	nsp
R254		nsp	10k Ω 1/5W J	nsp
R255		nsp	10k Ω 1/5W J	nsp
R256		nsp	75 Ω 1/5W J	nsp
R257		nsp	75 Ω 1/5W J	nsp
R258		nsp	75 Ω 1/5W J	nsp
R259		nsp	1k Ω 1/5W J	nsp
R901		nsp	680 Ω 1/5W J	nsp
R902		nsp	33 Ω 1/5W J	nsp
R903		nsp	680 Ω 1/5W J	nsp
R904		nsp	33 Ω 1/5W J	nsp
⚠ R905	/U1	nsp	3.3M Ω 1/2W	nsp
R907		nsp	3.3k Ω 1/5W J	nsp
R908		nsp	47k Ω 1/5W J	nsp
R911		4822 053 10109	10 Ω 1W J METAL	GA05100010
R912		4822 053 10109	10 Ω 1W J METAL	GA05100010
R915				
∫		nsp	47 Ω 1/4W J	nsp
R920				
R921		4822 053 10109	10 Ω 1W J METAL	GA05100010
R922		4822 053 10109	10 Ω 1W J METAL	GA05100010
R923		4822 053 10109	10 Ω 1W J METAL	GA05100010
			MISCELLANEOUS	
BN21		nsp	CONNECTOR MOLEX35237-1310	nsp
BN25		nsp	CONNECTOR MOLEX35237-0810	nsp
BN93		nsp	WAFER 52419 (5PIN)	nsp
CN90		nsp	WAFER 7.92MM (YUNHO)	nsp
CN92		nsp	WAFER MOLEX35328-0310	nsp
CN94		nsp	WAFER 5145 (3.96X10P)	nsp
JK21		9965 000 00207	JACK RCA	*YT001750R
JK22			JACK RCA	*YT001890R
JK23			JACK RCA	*YT001890R
JK25		4822 265 11655	JACK RCA (VCR) 3P (SILVER)	*YT001700R
JK26			JACK RCA	*YT001940R
JK91		4822 265 11602	TERMINAL SP SH0810361P	*YT001590R
JK92		4822 265 11603	TERMINAL SP SH0210381P	*YT001580R
JW91	/N1/K1	nsp	WIRE	nsp
L251		nsp	COIL 100µH K	nsp
L915		4822 157 11872	COIL 0.5µH K	*LC107210R
L916		4822 157 11872	COIL 0.5µH K	*LC107210R
L917		4822 157 11872	COIL 0.5µH K	*LC107210R
⚠ OL91	/N1	4822 265 11604	MAINS OUTLET EUR (1P)	*YT001490R
⚠ OL91	/U1		MAINS OUTLET UL (2P)	*YT001620R
⚠ RY91		9965 000 02031	RELAY SDT-S-112DMR	*LY000230R
⚠ T901		4822 146 11148	TRANS SUB EI-35 (115/230V)	*TS000910R

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			MAIN (CUP11256)	
			CIRCUIT BOARD	
			CAPACITORS	
C441		nsp	CER. 150pF 50V K	nsp
C442		nsp	CER. 150pF 50V K	nsp
C443		nsp	CER. 150pF 50V K	nsp
C444				
⟆		nsp	CER. 0.01µF 50V Z	nsp
C447				
C448		nsp	ELECT 47µF 25V	nsp
C449		nsp	ELECT 10µF 50V	nsp
C450		nsp	CER. 0.01µF 50V Z	nsp
C451		nsp	ELECT 10µF 50V	nsp
C452		nsp	ELECT 10µF 50V	nsp
C453		nsp	CER. 100pF 50V K	nsp
C454		nsp	CER. 100pF 50V K	nsp
C455		nsp	ELECT 10µF 50V	nsp
C456		nsp	ELECT 10µF 50V	nsp
C457		nsp	CER. 0.01µF 50V Z	nsp
C458		nsp	CER. 100pF 50V K	nsp
C459		nsp	CER. 100pF 50V K	nsp
C460		nsp	CER. 100pF 50V K	nsp
C461		nsp	ELECT 10µF 16V	nsp
C462		nsp	ELECT 10µF 16V	nsp
C463		nsp	CER. 100pF 50V K	nsp
C464		nsp	CER. 100pF 50V K	nsp
C465		nsp	ELECT 10µF 50V	nsp
C466		nsp	ELECT 10µF 50V	nsp
C467				
⟆		nsp	CER. 0.01µF 50V Z	nsp
C470				
C471		nsp	ELECT 10µF 50V	nsp
C472		nsp	ELECT 10µF 50V	nsp
C473		nsp	CER. 100pF 50V K	nsp
C474		nsp	CER. 100pF 50V K	nsp
C475		nsp	ELECT 10µF 50V	nsp
C476		nsp	ELECT 10µF 50V	nsp
C477		nsp	CER. 0.01µF 50V Z	nsp
C478		nsp	CER. 0.01µF 50V Z	nsp
C479		nsp	ELECT 10µF 50V	nsp
C481		nsp	ELECT 10µF 50V	nsp
C482		nsp	ELECT 10µF 50V	nsp
C483		nsp	CER. 100pF 50V K	nsp
C484		nsp	CER. 100pF 50V K	nsp
C485		nsp	ELECT 10µF 50V	nsp
C486		nsp	ELECT 10µF 50V	nsp
C487		nsp	CER. 0.01µF 50V Z	nsp
C488		nsp	CER. 0.01µF 50V Z	nsp
C489		nsp	FILM 0.0022µF 50V J	nsp
C490		nsp	FILM 0.0022µF 50V J	nsp
C491		nsp	CER. 0.01µF 50V Z	nsp
C492		nsp	CER. 100pF 50V K	nsp
C493		nsp	CER. 22pF 50V J	nsp
C494		nsp	CER. 100pF 50V K	nsp
C495		nsp	CER. 22pF 50V J	nsp
C496		nsp	CER. 100pF 50V K	nsp
C497		nsp	CER. 100pF 50V K	nsp
C498		nsp	CER. 100pF 50V K	nsp
C499		nsp	CER. 0.01µF 50V Z	nsp
C931		nsp	FILM 0.12µF 63V J	nsp
C932		nsp	FILM 0.047µF 50V J	nsp
C933		nsp	FILM 0.047µF 50V J	nsp
⚠ C935	/K1/U1		ELECT 10000µF 80V	*EA000950R
⚠ C935	/N1	9965 000 02032	ELECT 10000µF 75V	*EA000960R
⚠ C936	/K1/U1		ELECT 10000µF 80V	*EA000950R
⚠ C936	/N1	9965 000 02032	ELECT 10000µF 75V	*EA000960R
C940		nsp	CER. 0.1µF 50V Z	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C941		nsp	FILM 0.1µF 50V Z	nsp
C942		nsp	FILM 0.1µF 50V Z	nsp
C943				
⟆		nsp	FILM 0.022µF 50V J	nsp
C946				
⚠ C947		4822 124 12414	ELECT 2200µF 35V	*EA000850R
⚠ C948		4822 124 12414	ELECT 2200µF 35V	*EA000850R
⚠ C949		9965 000 02033	ELECT 3300µF 16V	*EA000930R
C950		nsp	ELECT 1µF 50V	nsp
C951		nsp	ELECT 47µF 50V	nsp
C952		nsp	ELECT 47µF 50V	nsp
C953		nsp	ELECT 22µF 50V	nsp
C954		nsp	ELECT 22µF 50V	nsp
C955		nsp	ELECT 4.7µF 50V	nsp
C956		nsp	CER. 100pF 50V K	nsp
C957		nsp	ELECT 100µF 35V	nsp
C958		nsp	ELECT 100µF 35V	nsp
C959		nsp	ELECT 470µF 10V	nsp
C961		nsp	ELECT 470µF 10V	nsp
C962		nsp	ELECT 4.7µF 50V	nsp
C963		nsp	CER. 0.01µF 50V Z	nsp
C964		nsp	CER. 0.01µF 50V Z	nsp
C965		nsp	CER. 0.001µF 50V K	nsp
C966		nsp	CER. 150pF 50V K	nsp
C967		nsp	ELECT 10µF 50V	nsp
C968		nsp	ELECT 47µF 25V	nsp
C970				
⟆		nsp	CER. 0.01µF 50V Z	nsp
C974				
C975		nsp	ELECT 47µF 25V	nsp
C976		nsp	ELECT 10µF 50V	nsp
C977				
⟆		nsp	CER. 0.01µF 50V Z	nsp
C980				
C981		nsp	CER. 470pF 50V K	nsp
C982		nsp	CER. 470pF 50V K	nsp
C983		nsp	CER. 470pF 50V K	nsp
C984		nsp	CER. 100pF 50V K	nsp
C985		nsp	CER. 100pF 50V K	nsp
C986		nsp	CER. 0.01µF 50V Z	nsp
C987		nsp	CER. 0.01µF 50V Z	nsp
C988		nsp	CER. 0.01µF 50V Z	nsp
C990		nsp	CER. 100pF 50V K	nsp
			DIODES	
⚠ D931		9965 000 02034	DIODE GBJ1504 BRIDGE	*HE200250R
⚠ D941				
⟆		4822 130 31878	DIODE 1N4003	HD200010AR
⚠ D946				
⚠ D949				
⟆		4822 130 31878	DIODE 1N4003	HD200010AR
⚠ D952				
⚠ D953		9965 000 02035	ZENER 33V 1/2W	*HD301740R
⚠ D955		9965 000 01304	ZENER 6.2V 1/2W	*HD301710R
⚠ D965		4822 130 31878	DIODE 1N4003	HD200010AR
D968		9965 000 01250	DIODE 1SS131M	*HD201290R
D971				
⟆		9965 000 01250	DIODE 1SS131M	*HD201290R
D974				
D976		9965 000 01250	DIODE 1SS131M	*HD201290R
			INTEGRATED CIRCUITS	
⚠ IC95		4822 209 83317	IC NJM7815FA	HC389001509F
⚠ IC96		4822 209 61256	IC NJM7915FA	HC389015090
⚠ IC97		4822 209 73674	IC NJM7806FA	HC389006090
IC45				
⟆		5322 209 13406	IC NJM2068MD-TE1	*HC104840R
IC48				

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			TRANSISTORS	
Q953		4822 130 11621	KTA1271Y	*BA000760R
Q954		4822 130 60588	DTC114ES	BA20010210
Q955		4822 130 11609	KSC2785Y	*HT300590R
Q956		4822 130 11609	KSC2785Y	*HT300590R
Q957		4822 130 61227	DTA114ES	BA10007210
Q962		4822 130 61227	DTA114ES	BA10007210
Q963		4822 130 60588	DTC114ES	BA20010210
Q964		4822 130 60588	DTC114ES	BA20010210
Q965		4822 130 61227	DTA114ES	BA10007210
Q966		4822 130 61227	DTA114ES	BA10007210
Q967		4822 130 11609	KSC2785Y	*HT300590R
Q971				
∫		4822 130 60588	DTC114ES	BA20010210
Q974				
Q975		4822 130 61227	DTA114ES	BA10007210
Q976		4822 130 61227	DTA114ES	BA10007210
Q977		4822 130 60588	DTC114ES	BA20010210
Q978		4822 130 61227	DTA114ES	BA10007210
			RESISTORS	
R449		nsp	1 Ω 1/4W J	nsp
R451		nsp	100k Ω 1/5W J	nsp
R452		nsp	100k Ω 1/5W J	nsp
R455		nsp	47k Ω 1/5W J	nsp
R456		nsp	47k Ω 1/5W J	nsp
R457		nsp	120 Ω 1/5W J	nsp
R458		nsp	120 Ω 1/5W J	nsp
R459		nsp	1.5k Ω 1/5W J	nsp
R460		nsp	1.5k Ω 1/5W J	nsp
R461		nsp	47k Ω 1/5W J	nsp
R462		nsp	47k Ω 1/5W J	nsp
R465		nsp	47k Ω 1/5W J	nsp
R466		nsp	47k Ω 1/5W J	nsp
R467		nsp	120 Ω 1/5W J	nsp
R468		nsp	120 Ω 1/5W J	nsp
R469		nsp	10 Ω 1/4W J	nsp
R471		nsp	47k Ω 1/5W J	nsp
R472		nsp	47k Ω 1/5W J	nsp
R475		nsp	47k Ω 1/5W J	nsp
R476		nsp	47k Ω 1/5W J	nsp
R477		nsp	120 Ω 1/5W J	nsp
R478		nsp	120 Ω 1/5W J	nsp
R479		nsp	10 Ω 1/5W J	nsp
R480		nsp	2.2 Ω 1/5W J	nsp
R481		nsp	47k Ω 1/5W J	nsp
R482		nsp	47k Ω 1/5W J	nsp
R485		nsp	47k Ω 1/5W J	nsp
R486		nsp	47k Ω 1/5W J	nsp
R487		nsp	120 Ω 1/5W J	nsp
R488		nsp	120 Ω 1/5W J	nsp
R489		nsp	2.2 Ω 1/4W J	nsp
R490		nsp	2.2 Ω 1/5W J	nsp
R492		nsp	4.7k Ω 1/5W J	nsp
R493		nsp	1.8k Ω 1/5W J	nsp
R494		nsp	4.7k Ω 1/5W J	nsp
R495		nsp	1.8k Ω 1/5W J	nsp
R496		nsp	4.7k Ω 1/5W J	nsp
R497		nsp	4.7k Ω 1/5W J	nsp
R498		nsp	4.7k Ω 1/5W J	nsp
R931		nsp	10k Ω 1/4W J	nsp
R935		nsp	100k Ω 1/4W J	nsp
R936		nsp	100k Ω 1/4W J	nsp
⚠ R941				
∫		4822 117 13653	0.47 Ω 1W J FUSE	*NH000080R
⚠ R944				
R945		nsp	2.2 Ω 1/4W J	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R946		nsp	2.2 Ω 1/4W J	nsp
R947		nsp	47k Ω 1/5W J	nsp
R948		nsp	47k Ω 1/5W J	nsp
R949		nsp	22k Ω 1/4W J	nsp
R950		nsp	10k Ω 1/4W J	nsp
R952		nsp	220 Ω 1/5W J	nsp
R953		nsp	1k Ω 1/5W J	nsp
R954		nsp	100k Ω 1/5W J	nsp
R955		nsp	22 Ω 1/5W J	nsp
R956				
∫		nsp	33k Ω 1/5W J	nsp
R960				
R961		nsp	1.5k Ω 1/5W J	nsp
R962		nsp	47k Ω 1/5W J	nsp
R963		nsp	47k Ω 1/5W J	nsp
R964		nsp	680 Ω 1/5W J	nsp
R965		nsp	10k Ω 1/5W J	nsp
R966		nsp	22k Ω 1/5W J	nsp
R967		nsp	10k Ω 1/5W J	nsp
R968		nsp	10k Ω 1/5W J	nsp
R969		4822 053 10391	390 Ω 1W J METAL	GA05391010
R970		4822 053 10391	390 Ω 1W J METAL	GA05391010
R971				
∫		nsp	100 Ω 1/4W J	nsp
R974				
R976		nsp	2.2 Ω 1/5W J	nsp
R979		nsp	1 Ω 1/4W J	nsp
			MISCELLANEOUS	
BN94		nsp	WAFER 2461-10	nsp
CN11		nsp	WAFER MOLEX35336-1310	nsp
CN12		nsp	WAFER MOLEX35336-1510	nsp
CN13		nsp	WAFER MOLEX35336-1510	nsp
CN21		nsp	WAFER MOLEX35336-1310	nsp
CN25		nsp	WAFER MOLEX35336-0810	nsp
CN27		nsp	WAFER MOLEX35336-0810	nsp
CN31		nsp	WAFER MOLEX35336-1510	nsp
CN32		nsp	WAFER MOLEX35336-1510	nsp
CN52		nsp	WAFER	nsp
CN53		nsp	WAFER	nsp
CN71		nsp	WAFER 52045-2945	nsp
CN74		nsp	WAFER	nsp
CN82		nsp	WAFER	nsp
CN83		nsp	WAFER MOLEX 5267-05A	nsp
CN93		nsp	WAFER 53291(5PIN)	nsp
CN96		nsp	WAFER MOLEX35313-0310	nsp
CN97		nsp	WAFER	nsp
JW95		nsp	WIRE ASSY	nsp
L901		9965 000 00221	COIL FERRITE	*FN000090R
RY95		9965 000 02036	RELAY OSA-SS-212DM5	*LY000210R
RY96		9965 000 02031	RELAY SDT-S-112DMR	*LY000230R
RY97		9965 000 02036	RELAY OSA-SS-212DM5	*LY000210R
RY98		4822 280 60592	RELAY G5Z-2A-DC12V	*LY000220R
S401		4822 276 14107	SW TACT	*SP000880R
TH91		9965 000 02037	POSISTOR P42T7D330B	*HP000060R
			AMP (CUP11286) CIRCUIT BOARD CAPACITORS	
C501				
∫		nsp	ELECT 10μF 50V	nsp
C505				
C506				
∫		nsp	CER. 470pF 50V K	nsp
C510				

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C521				
∫		nsp	CER. 680pF 50V K	nsp
C525				
C561				
∫		nsp	ELECT 470µF 10V	nsp
C565				
C601				
∫		nsp	CER. 15pF 50V J	nsp
C605				
C606				
∫		nsp	CER. 180pF 50V K	nsp
C610				
C611				
∫		nsp	ELECT 10µF 50V	nsp
C615				
▲ C631				
∫			ELECT 330µF 100V	*EA000940R
▲ C640				
C641				
∫		nsp	ELECT 10µF 50V	nsp
C645				
C681				
∫		nsp	ELECT 10µF 50V	nsp
C685				
C686		nsp	CER. 470pF 50V K	nsp
C691		nsp	ELECT 47µF 50V	nsp
C692		nsp	ELECT 10µF 50V	nsp
			DIODES	
D551				
∫		9965 000 01250	DIODE 1SS131M	*HD201290R
D560				
D581				
∫		9965 000 01250	DIODE 1SS131M	*HD201290R
D586				
			TRANSISTORS	
Q511				
∫		4822 130 11615	KTA1268GR	*HT100400R
Q520				
Q541				
∫		4822 130 11615	KTA1268GR	*HT100400R
Q545				
Q556				
∫		4822 130 11616	KTC3200GR	*HT300610R
Q565				
Q581				
∫		4822 130 11615	KTA1268GR	*HT100400R
Q585				
▲ Q611				
∫		4822 130 63899	2SC4137V	*HT300660R
▲ Q615				
▲ Q621				
∫		4822 130 11485	2SA1360O	*HT100410R
▲ Q625				
▲ Q626				
∫		4822 130 61009	2SC3423O	*HT300620R
▲ Q630				
▲ Q641				
∫		4822 130 11618	2SC4883A	*HT300570R
▲ Q645				
▲ Q646				
∫		4822 130 11619	2SA1859A(SAN)	*HT100380R
▲ Q650				
▲ Q656				
∫		4822 130 10962	2SC3856	HT338562C3
▲ Q660				
▲ Q661				
∫		4822 130 10963	2SA1492	HT114922C3
▲ Q665				

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
Q681				
∫		4822 130 11609	KSC2785Y	*HT300590R
Q685				
Q699		4822 130 11617	KSC2316Y	*HT300580R
			RESISTORS	
▲ R491				
∫		nsp	1 Ω 1/4W J	nsp
▲ R500				
R501				
∫		nsp	1k Ω 1/5W J	nsp
R505				
R506				
∫		nsp	33k Ω 1/5W J	nsp
R510				
R511				
∫		nsp	15 Ω 1/5W J	nsp
R520				
R521				
∫		nsp	680 Ω 1/5W J	nsp
R525				
R526				
∫		nsp	68 Ω 1/5W J	nsp
R530				
R531				
∫		nsp	1.5k Ω 1/5W J	nsp
R540				
R541				
∫		nsp	270 Ω 1/5W J	nsp
R545				
R551				
∫		nsp	47k Ω 1/5W J	nsp
R555				
R556				
∫		nsp	33k Ω 1/5W J	nsp
R560				
R561				
∫		nsp	1.2k Ω 1/5W J	nsp
R565				
R566				
∫		nsp	560 Ω 1/5W J	nsp
R590				
R591				
∫		nsp	4.7k Ω 1/5W J	nsp
R600				
R601				
∫		nsp	22k Ω 1/5W J	nsp
R610				
R611				
∫		nsp	560 Ω 1/5W J	nsp
R615				
R616				
∫		nsp	22k Ω 1/5W J	nsp
R620				
R621				
∫		nsp	82 Ω 1/5W J	nsp
R630				
▲ R631				
∫		nsp	82 Ω 1/4W J	nsp
▲ R645				
!R646				
∫		nsp	2.2 Ω 1/4W J	nsp
▲ R655				
▲ R661				
∫		4822 117 13654	CEMENT(X2) 0.22/5 W	*GO00[illegible]0006R
▲ R665				
▲ R667				
∫		nsp	47 Ω 1/4W J	nsp
▲ R670				

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R671 ∫ R675		nsp	1k Ω 1/5W J	nsp
R676 ∫ R680		nsp	2.2k Ω 1/5W J	nsp
R681 ∫ R685		nsp	1k Ω 1/5W J	nsp
R686 ∫ R690		nsp	10k Ω 1/5W J	nsp
R691		nsp	33k Ω 1/5W J	nsp
R692		nsp	150 Ω 1/5W J	nsp
R693 ∫ R697		nsp	1.5k Ω 1/5W J	nsp
R699		nsp	33k Ω 1/5W J	nsp
			MISCELLANEOUS	
BN52		nsp	WIRE ASSY 2.5MM (9P)	nsp
BN53		nsp	WIRE ASSY 2.5MM (9P)	nsp
CN51		nsp	WAFER	nsp
⚠ F901	/N1/K1	9965 000 02038	FUSE T 5A L 25OV	*FS000700R
⚠ F901	/U1		FUSE SB 8A L 250V	*FS000710R
FFC1			FFC 1.25Pich 29P	*YU000580R
L667		4822 157 11872	COIL 0.5μH K	*LC107210R
L668		4822 157 11872	COIL 0.5μH K	*LC107210R